FOUNDED IN 1856

RAILWAY AGE

JUNE 12, 1948

Earning $6.12 a mile!

The Illinois Central's new all-coach luxury train, "City of New Orleans," grossed more than $4,000,000 in its first year of operation. Earnings increased from $2.61 a mile in April 1947, to an average of $6.12 a mile for the full 12 months. Powered by 6000 H.P. General Motors Diesel locomotives, the "City" makes the 921-mile run from Chicago to New Orleans in 15 hours 55 minutes, with 19 intermediate stops — the fastest scheduled land transportation in history between the Great Lakes and the Gulf.

Many things are responsible for this splendid record but the underlying factor is the fast, dependable performance of these smooth-pulling General Motors Diesels which ushered in the streamline era with its fast, clean, comfortable on-time railroad travel.

HELP AMERICA PRODUCE FOR PEACE — Save Your SCRAP

ELECTRO-MOTIVE DIVISION
GENERAL MOTORS — LA GRANGE, ILL.

GENERAL MOTORS LOCOMOTIVES

Home of the Diesel Locomotive

RAILROADS REPRESENTING—

of the total railroad mileage in the U. S.

are now prepared to service freight cars

equipped with UNIT TRUCKS, including the

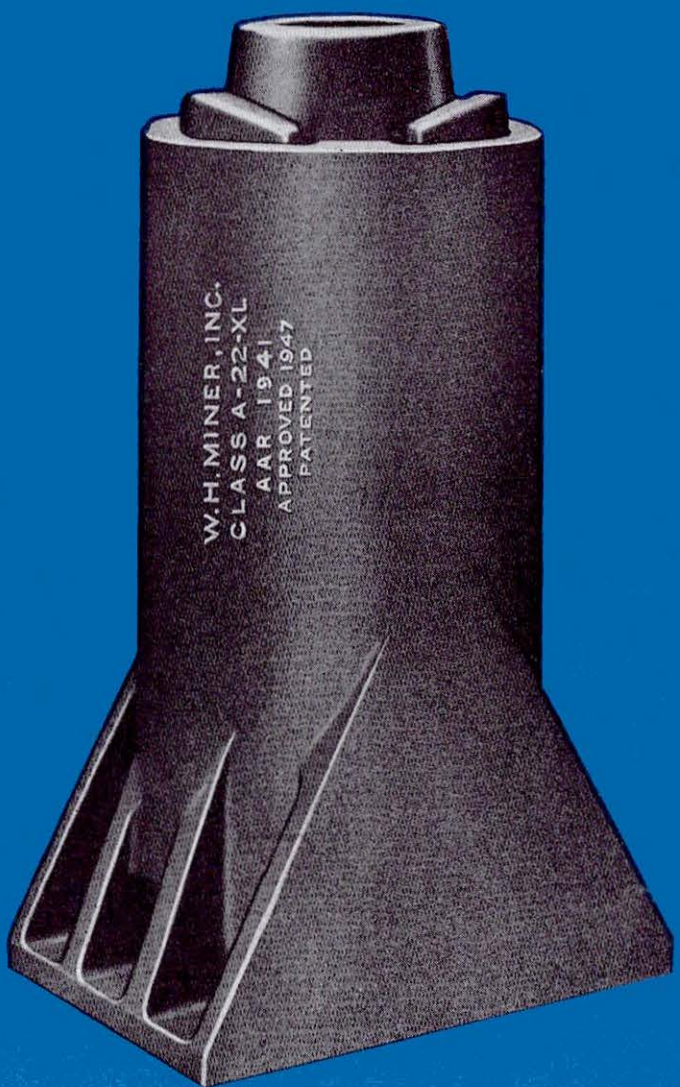
replacement of Unit Brake Beams in kind.

UNIT TRUCK CORPORATION NEW YORK

MINER

Class A-22-XL

GREATER
CAPACITY
•
LESS
WEIGHT
•
NO
BOLT



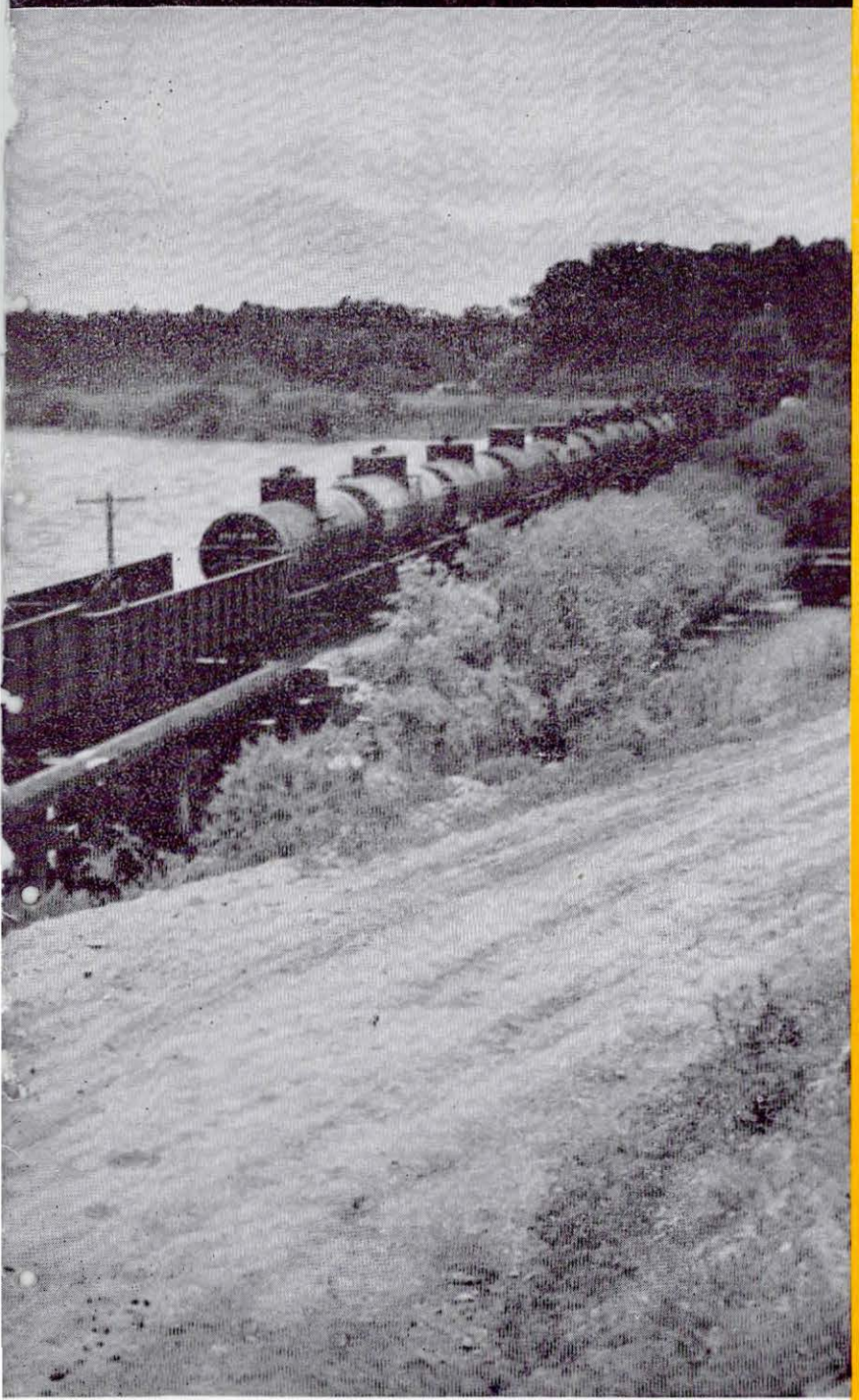
W. H. MINER, INC. CHICAGO

25 Baldwin Diesels

805 locomotive-months

92.8% availability

BASED ON POTENTIAL HOURS



on the Northern Pacific

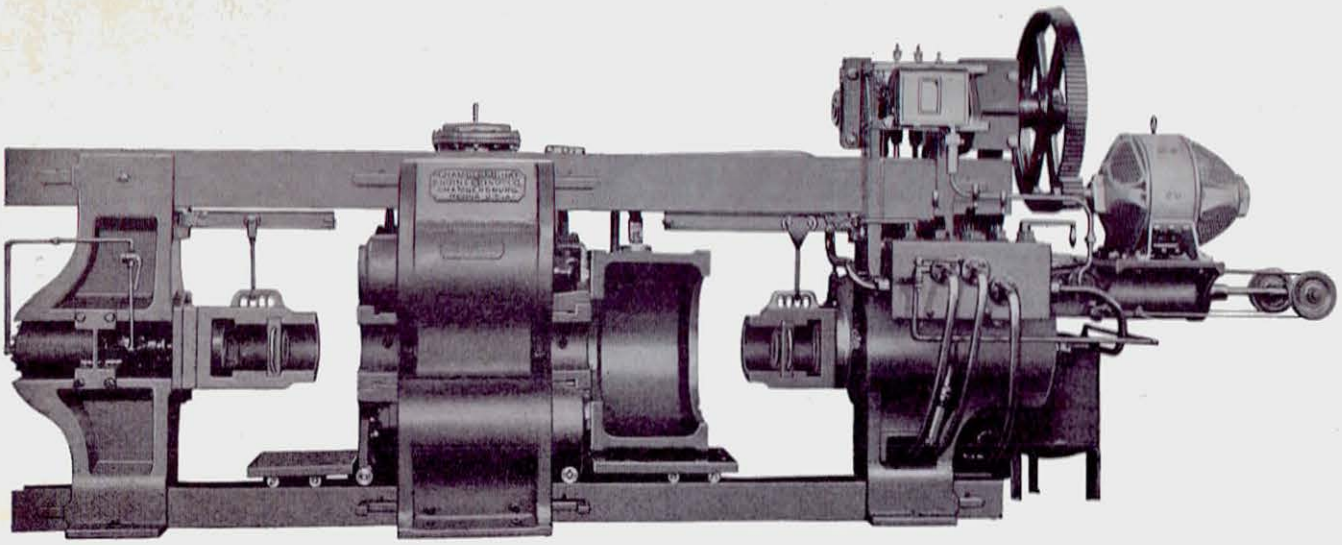
The Northern Pacific Railway Company has been using Baldwin diesel-electric switchers since 1941, when the first locomotive was delivered. This was followed by two locomotives in 1942, six in 1944 and sixteen in 1945.

Operating records for these 25 locomotives, covering an aggregate of 805 locomotive-months, show that they have been available for service 531,414 hours out of a potential total of 572,340 hours—an average availability of 92.8%.

Such high availability, year after year, means low operating costs and a big return on the investment.

BALDWIN

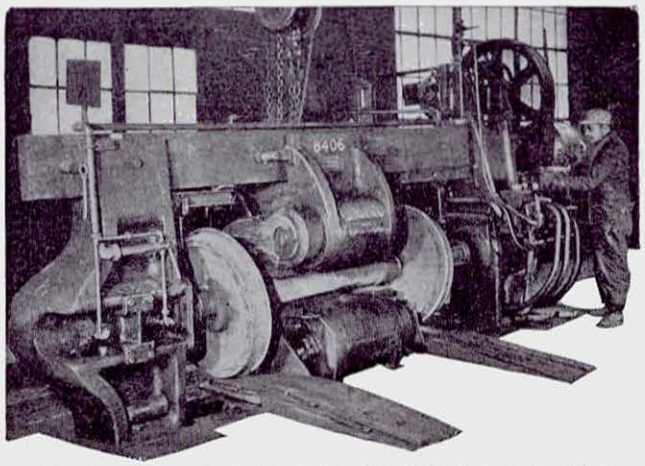
The Baldwin Locomotive Works, Philadelphia 42, Pa., U. S. A. Offices: Birmingham, Boston, Chicago, Cleveland, Houston, New York, Philadelphia, Pittsburgh, San Francisco, Seattle, St. Louis, Washington. In Canada: Canadian Locomotive Co., Ltd., Kingston, Ontario.



The speed of this Press is limited only by the speed of your men in handling wheels and axles!

The Chambersburg Patented Duplex Wheel Press was designed for speed. It is the fastest press built. This applies not only to speed in doing the work, but in converting it from a Mounting Press to a Demounting Press and back. It requires but three minutes for the change. Demounting time for a pair of wheels will not run over forty seconds, floor to floor, and mounting time will not exceed seventy-two seconds. Compare that with your present time.

The Duplex Press is solid and stationary, as the rams are the only traveling members. The drive is by a single motor with one pump and one gauge, the press being operated from a single station by one operator.



Chambersburg High Speed Duplex Wheel Press in Shops of L. & N. R. R.

For full details write for Bulletin 202

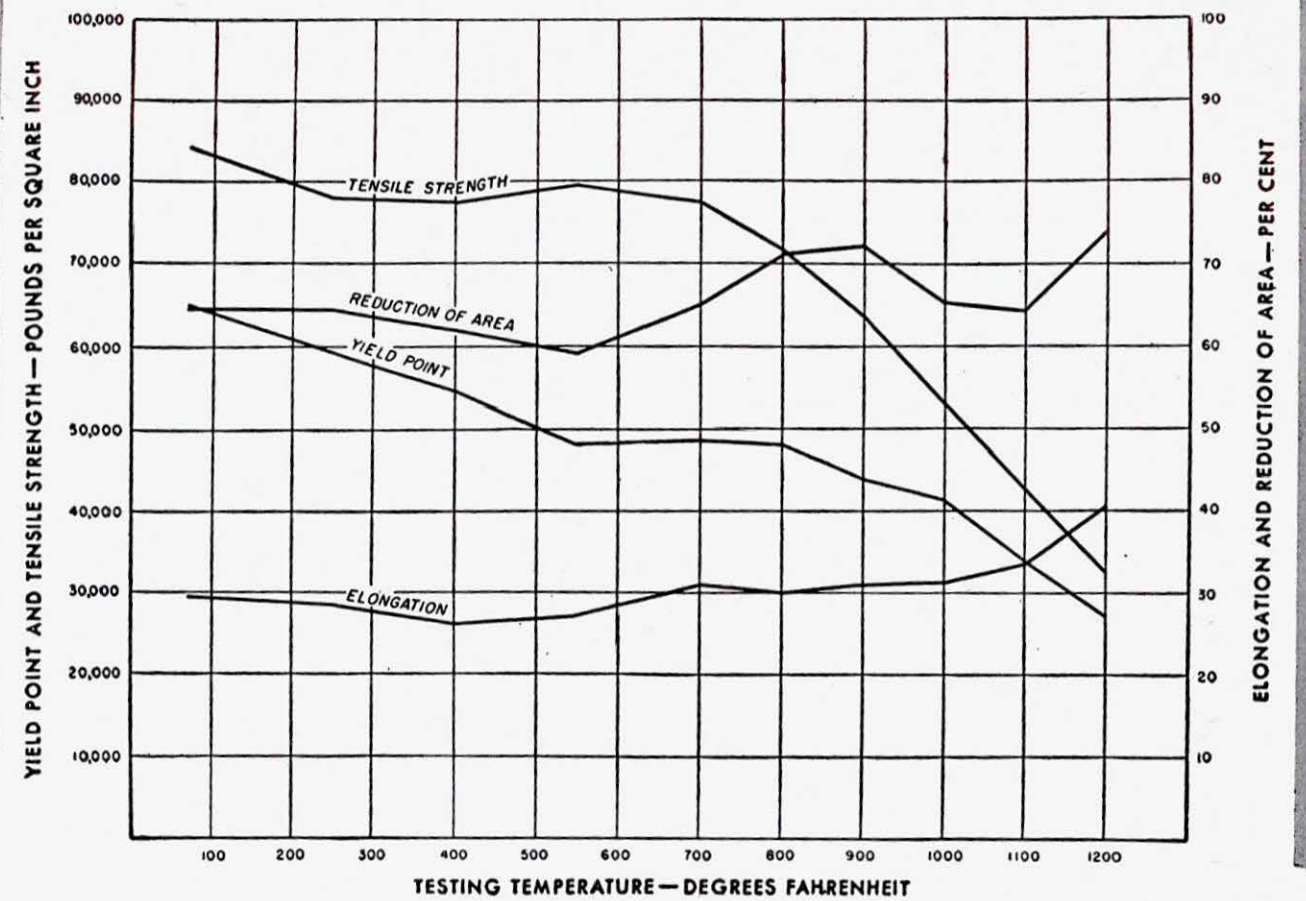
CHAMBERSBURG ENGINEERING COMPANY · CHAMBERSBURG, PENNA.

CHAMBERSBURG

HIGH SPEED DUPLEX CAR WHEEL PRESSES

CHAMBERSBURG
Builders of IMPACT Machinery

Published weekly by Simmons-Boardman Publishing Corporation, Orange, Conn. Executive Offices, 30 Church Street, New York 7, N. Y. Entered as second class matter at Orange, Conn., under the act of March 3, 1879. Subscription price $6.00 for one year. U. S. and Canada. Single copies, 50 cents each. Vol. 124, No. 24.



Short Time Tensile Properties of Manganese-Vanadium Plate Steel at Elevated Temperatures.

(Average of 9 Heats)

High temperature properties of Manganese-Vanadium Steel Plate

IN PLATE STEEL for boiler construction, ability to maintain ductility throughout the temperature range customarily experienced in high pressure boilers is a notable achievement.

The above chart indicates that Manganese-Vanadium plate steel meets this requirement to a superlative degree. Representing closely-agreeing results obtained on 9 commercial heats of this type of steel, made to ASTM Spec. A 225-46, it displays in striking manner the excellent ductility in that temperature range ordinarily referred to as "blue brittle."

The hazardous embrittlement which occurs when firebox plate of ordinary steels is heated through this temperature range is of great concern to both designing engineers and operators of locomotive boilers. The satisfactory service record of Manganese-Vanadium steel plate in a number of locomotive boiler applications, under a wide variety of operating conditions, is a practical demonstration that its mechanical properties are adequate for successful locomotive boiler operation at elevated temperatures.

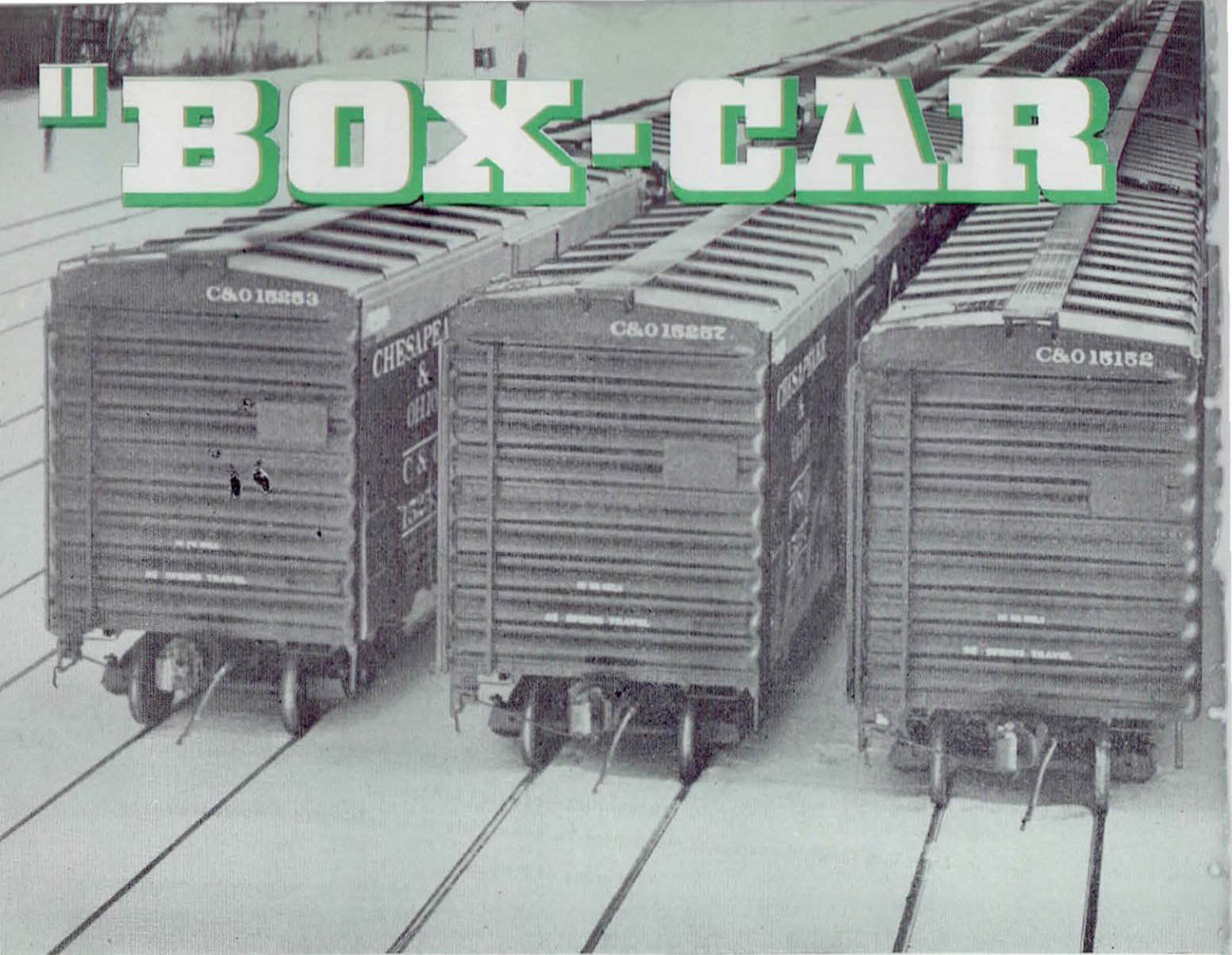
Our metallurgical engineers have had considerable experience in this field, and will be glad to help you obtain the maximum benefit from the use of Manganese-Vanadium steel.

MAKERS OF FERRO ALLOYS — VANCORAM BRAND — CHEMICALS AND METALS

VANADIUM CORPORATION OF AMERICA

420 LEXINGTON AVENUE, NEW YORK 17, N.Y. • DETROIT • CHICAGO • CLEVELAND • PITTSBURGH

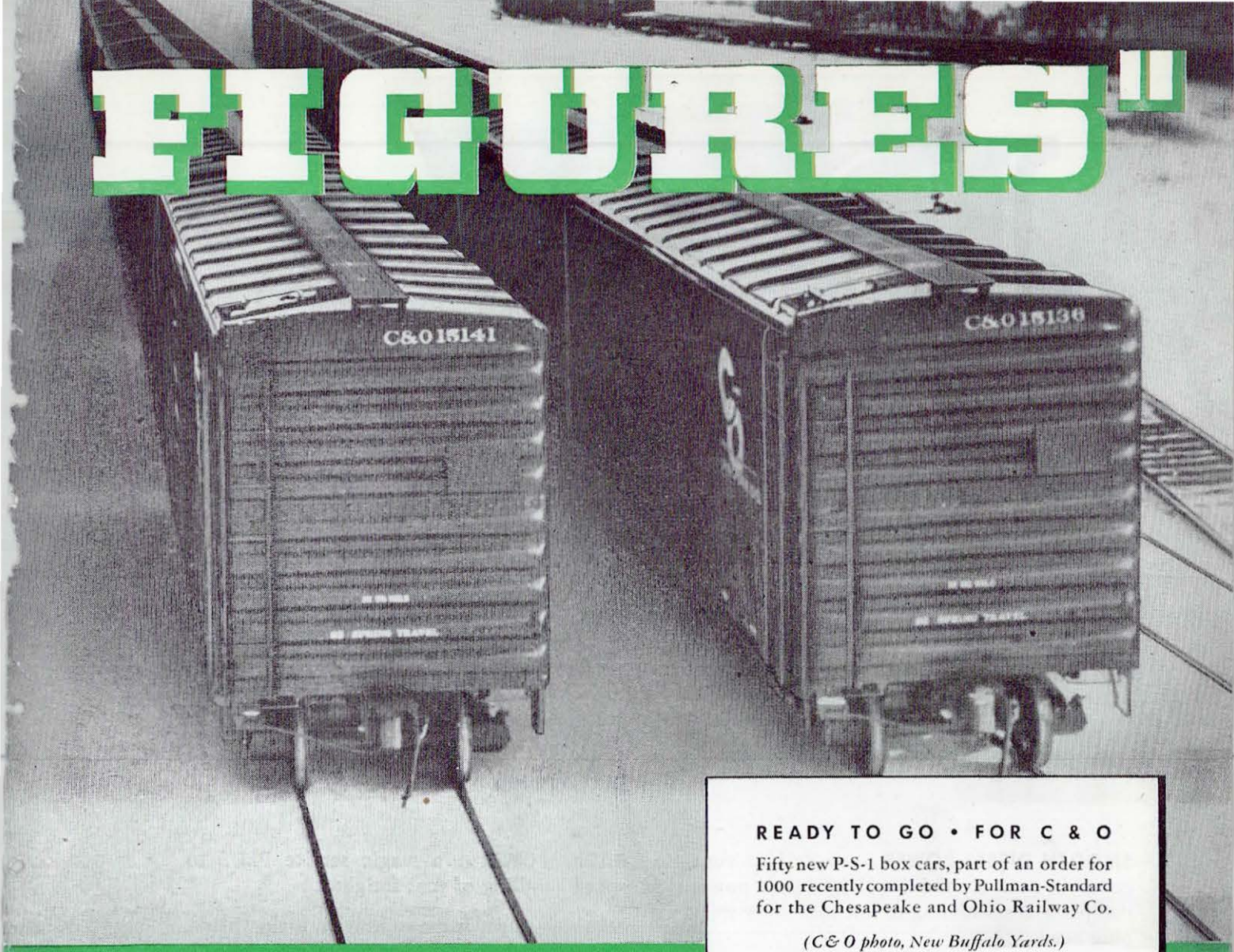
"BOX-CAR



P·S·1

● The totals of P-S-1 box cars delivered or on order are getting to be "box-car figures," for a fact. And the reason is obvious. The railroads of America are becoming increasingly aware of the *quality* built into these cars—of the *value* built into them. They recognize the soundness of the P-S-1 idea—standardized design, service-tested components, and line-production efficiency and economy. The *car* is as right as the idea!

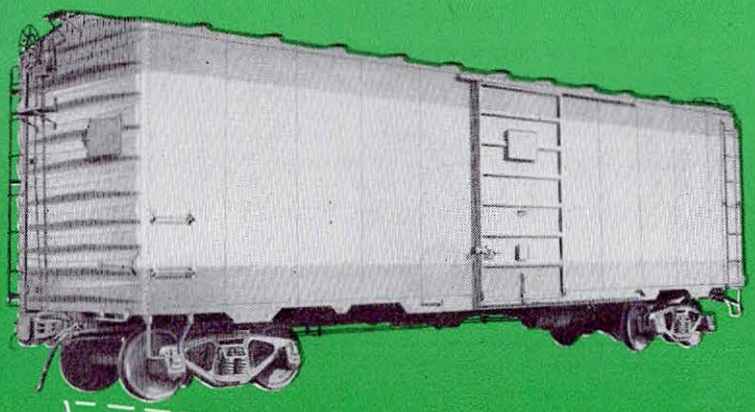
FIGURES"



READY TO GO • FOR C & O

Fifty new P-S-1 box cars, part of an order for 1000 recently completed by Pullman-Standard for the Chesapeake and Ohio Railway Co.

(C & O photo, New Buffalo Yards.)



Since the introduction of the P-S-1, nearly 40% of all box cars ordered from all contract car-builders, and over 28% of ALL box cars ordered from ALL sources, have been P-S-1 cars.*

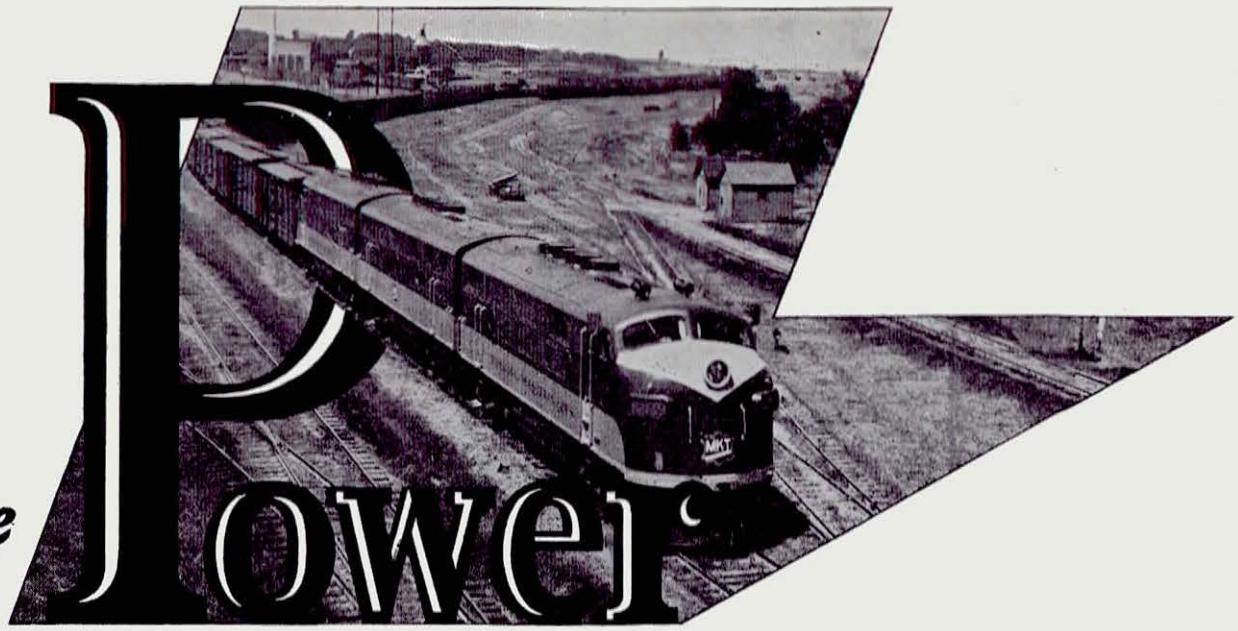
**Percentages based upon car-order figures reported by the American Railway Car Institute, April, 1948.*

Pullman-Standard

CAR MANUFACTURING COMPANY

CHICAGO • NEW YORK • CLEVELAND • WASHINGTON, D. C. • PITTSBURGH • BIRMINGHAM • WORCESTER, MASS.

San Francisco Sales Representative, Mark Noble



The Power

....to move Mountains of Freight..

SMOOTH DIESEL POWER...to deliver your goods in perfect condition. High-speed power that permits scheduling to suit your every shipping need.

DIESEL POWERED SWITCHERS . . . at important terminals to expedite the transfer of your carloads to markets and factories.

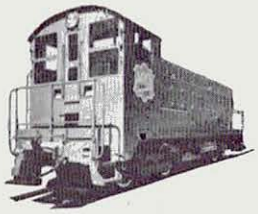
RADIO POWER...a magic service PLUS to speed handling of your freight.

Katy's equipped for even heavier, longer hauls, smoother handling of your shipments—dependable, on-time service between Texas and Oklahoma and the North. For careful, precision shipping to and from the Southwest...ship KATY!

YOURS on the Katy

NEW MERCHANDISE CARS
...hundreds of them, augment Katy's fleet of heavy cargo transportation.

NEW HOPPER CARS
...available for quick, efficient, versatile service to shippers.



NEW DIESEL POWER
...to expedite transfer of your freight at major terminals—and road haul it with speed and economy.

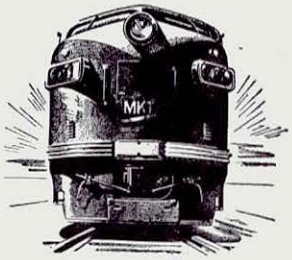
KATY BULLET
Daily from Kansas City and St. Louis to all main Southwestern points.

KATY KOMET
Katy's fastest—Southbound daily from St. Louis to all main-line points.

KATY KLIPPER
Daily, St. Louis and Kansas City to Oklahoma and Texas.

KATY PACKER
Northbound daily, Fort Worth to Kansas City and St. Louis.

"72" FAST FREIGHT
Daily from Texas and Oklahoma to Kansas City and St. Louis.



Ship Via The Southwest's Main Supply Line

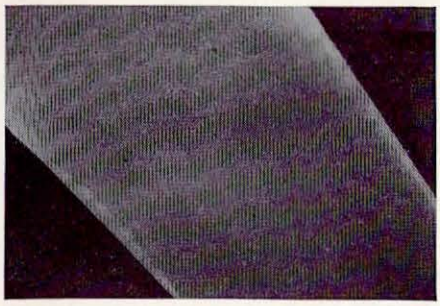
MISSOURI-KANSAS-TEXAS LINES

M-K-T KATY RAILROAD MISSOURI-KANSAS-TEXAS

78

Blasted for 9 Years

without pitting



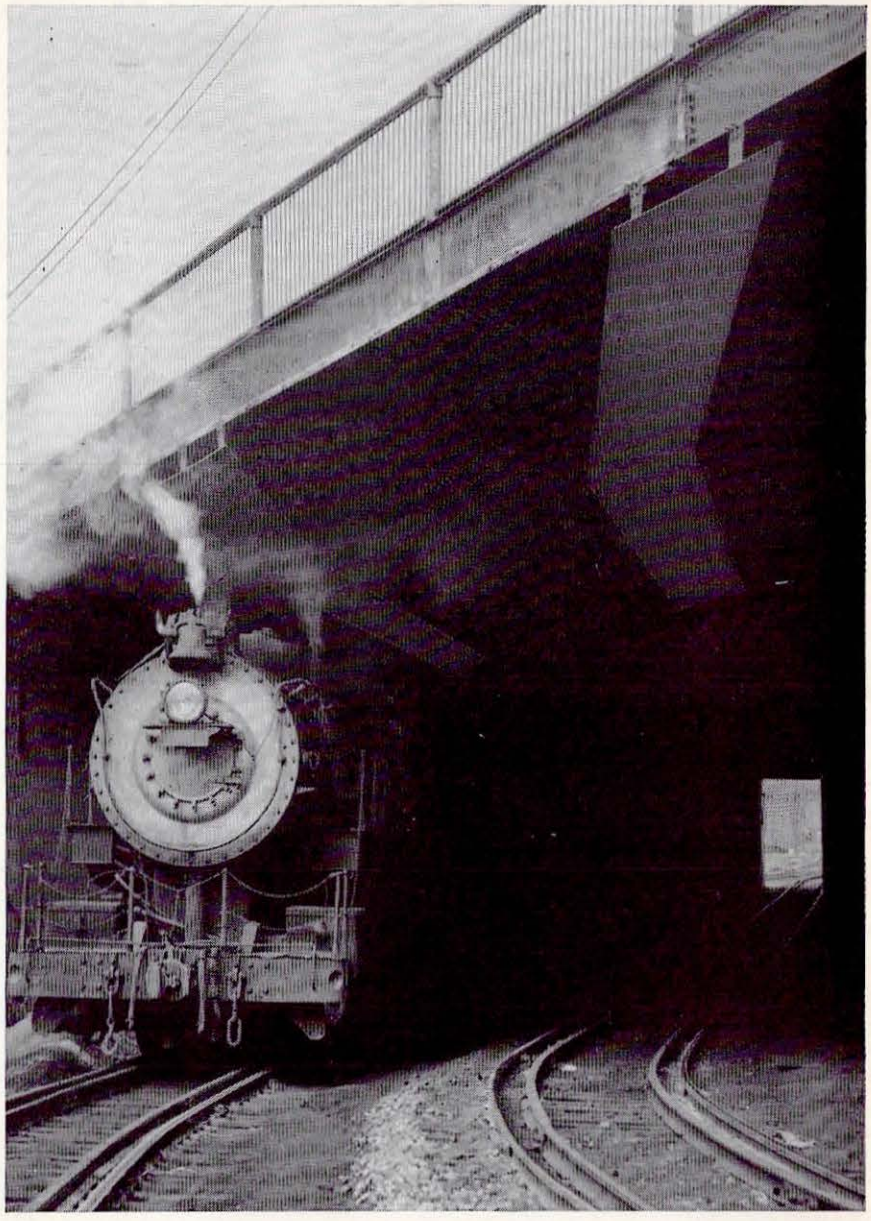
These two Mayari R blast plates protect the Prospect Viaduct where it passes over the tracks of the Conemaugh and Black Lick Railroad, at Johnstown, Pa. Located only 15 ft above the rails, these plates have withstood the blasting effect of approximately 105 trains per day since June, 1939.

Recent inspections show the plates to be in very good condition with no pitting and no loss of section. The only indication of wear is a slight rusting near the outer edges.

Service like this underlies the rapidly-increasing use of Mayari R for blast plates. Railroads, highway departments and other organizations responsible for bridge protection have found that Mayari R does an excellent job at a lower cost than the material heretofore in general use.

A low-alloy, high-tensile steel, Mayari R has many properties besides corrosion-resistance that appeal to designers of fixed structures and rolling equipment. It has a minimum tensile strength of 70,000 psi and a minimum yield point of 50,000 psi. It resists denting to the same degree as ordinary carbon steel 1.30 times as thick. It retains paint 20 to 80 pct longer than does carbon steel. It can be sheared, punched, formed and welded by the usual methods.

For more detailed information on this long-lasting, weight-saving, highly-adaptable steel write or phone for Mayari R Catalog 209.



Mayari R blast plates 7/16 in. by 36 in. by 65 ft over the C. and B. L. tracks at Johnstown, Pa. No pitting has occurred in 9 years of hard service.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by
Bethlehem Pacific Coast Steel Corporation
Export Distributor: Bethlehem Steel Export Corporation

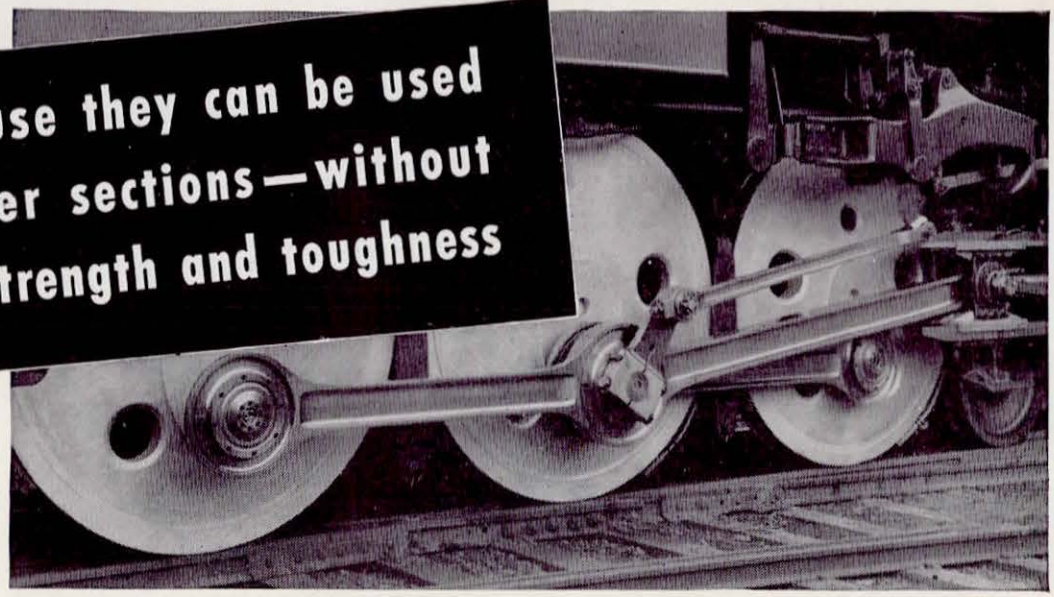
BETHLEHEM STEEL

Mayari R *makes it lighter... stronger... longer lasting*

Alloy Steels

Save Weight

. . . because they can be used in thinner sections—without loss of strength and toughness



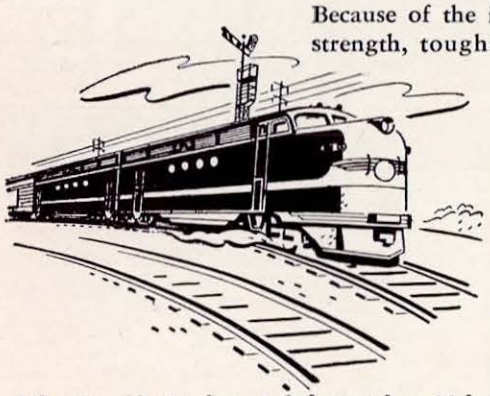
Thinner side rods on modern locomotives demonstrate how Republic Alloy Steels have helped to reduce weight and to increase working efficiency—without any loss of strength or safety. Republic metallurgists are ready to work with you and your engineers to do the same for all types of railroad equipment.

There is no excuse for efficiency lost because working parts or tools are burdened with excess deadweight. Nor is there any reason for unnecessary bulkiness where streamlining is desirable. The high strength-to-weight ratio and wear-resistance of Republic Alloy Steels are proving both of those statements today in all types of railroad equipment and tools.

Because of the ideal combination of high strength, toughness and hardenability in these fine steels, it frequently is possible to reduce cross-sectional areas and bearing surfaces—without any loss in safety factor, service life or ultimate cost.

Republic—world leader in the alloy steel field—is well prepared to discuss the advantages of these steels as applied to *your* individual needs. Write us.

REPUBLIC STEEL CORPORATION
Alloy Steel Division • Massillon, Ohio
GENERAL OFFICES, CLEVELAND 1, OHIO
Export Dept.: Chrysler Bldg., New York 17, N. Y.

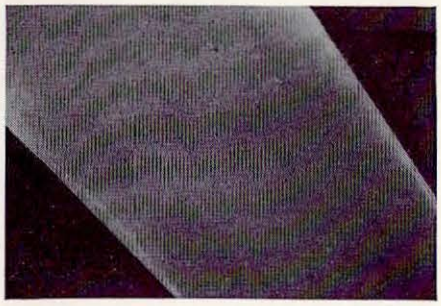


Republic **ALLOY STEELS**

REPUBLIC STEEL

Other Republic Products include Stainless, High Strength and Carbon Steels—Sheets—Plates—Pipe—Bolts, Nuts and Rivets—Boiler Tubes

Blasted for 9 Years without pitting



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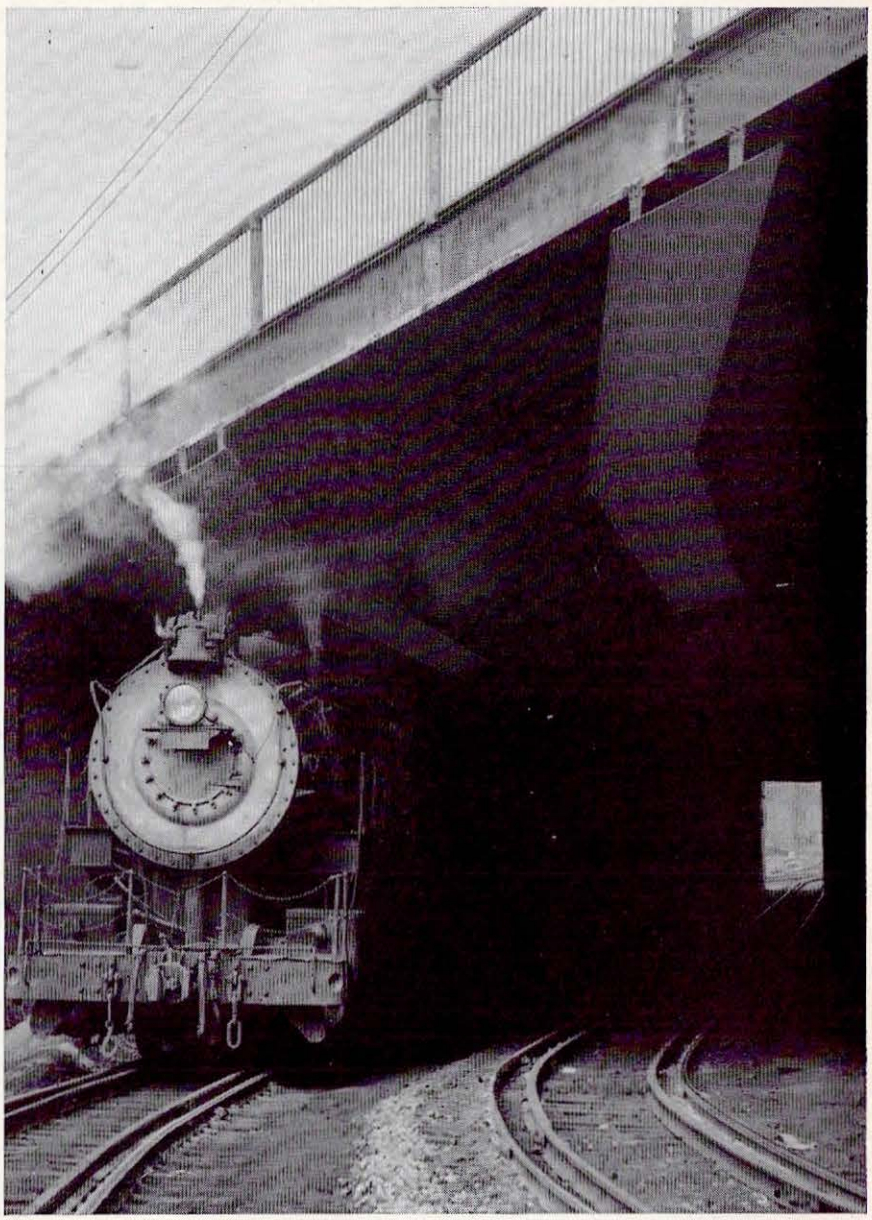

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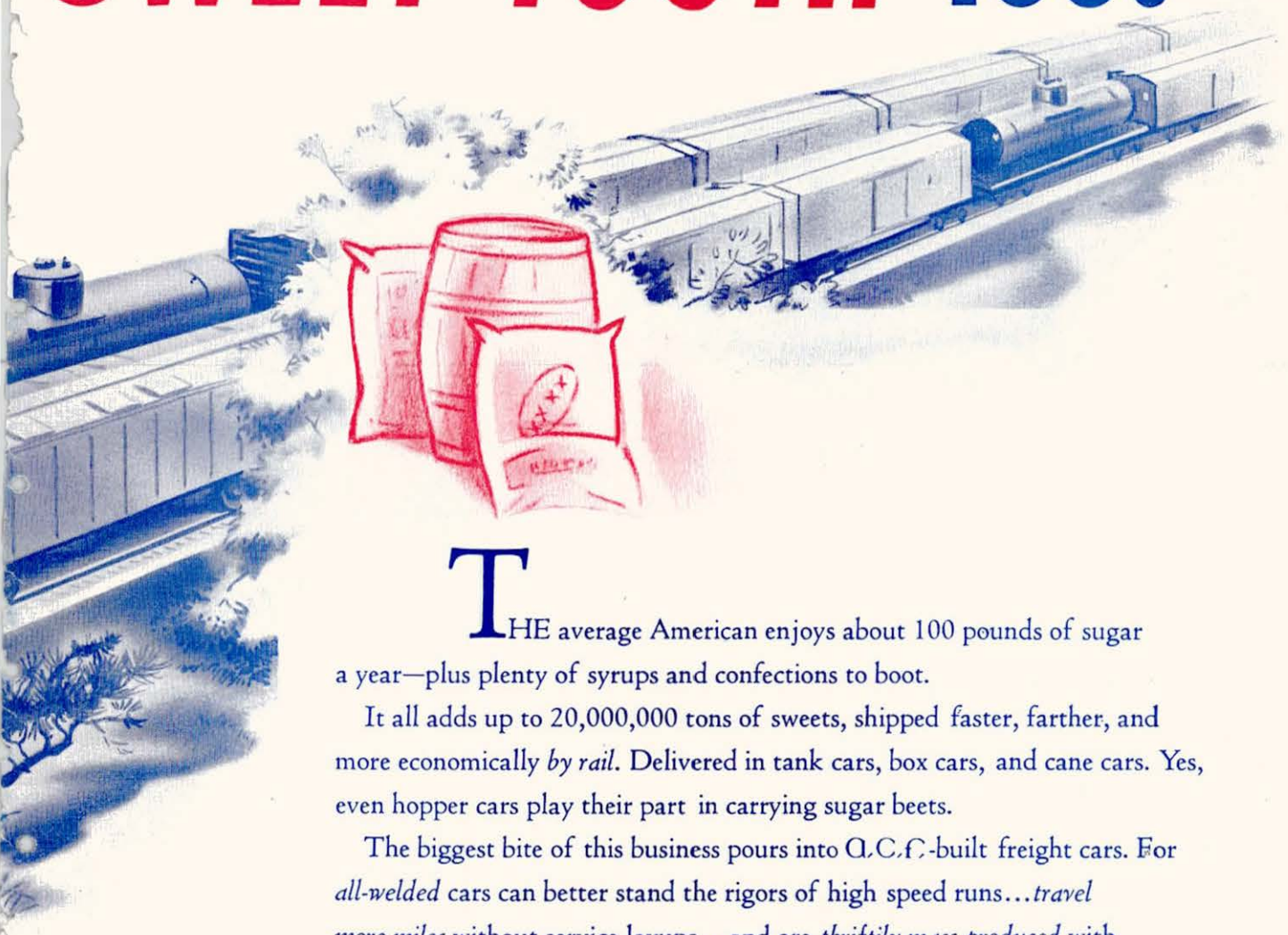
The RAILROADS

a.c.f.

have a SWEET TOOTH too!



THE average American enjoys about 100 pounds of sugar a year—plus plenty of syrups and confections to boot.

It all adds up to 20,000,000 tons of sweets, shipped faster, farther, and more economically *by rail.* Delivered in tank cars, box cars, and cane cars. Yes, even hopper cars play their part in carrying sugar beets.

The biggest bite of this business pours into A.C.F.-built freight cars. For *all-welded* cars can better stand the rigors of high speed runs...*travel more miles* without service layups...and are *thriftily mass produced* with newly developed A.C.F. assembly-line techniques.

Good reasons why A.C.F. is producing more and more tonnage-dependable freight cars for more and more railroads and shippers.

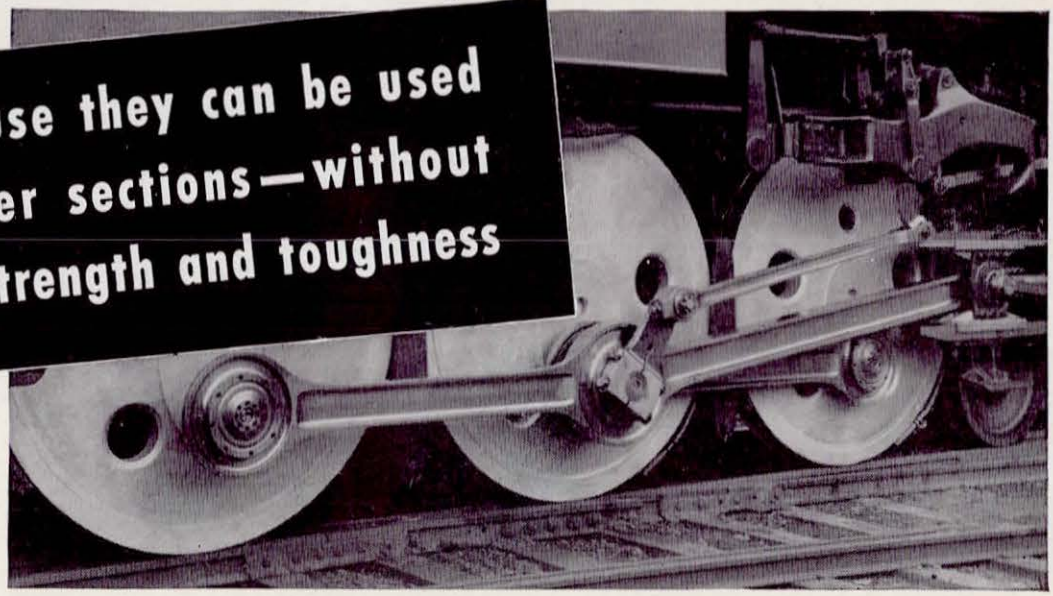
American Car and Foundry Company, New York • Chicago • St. Louis • Washington • Cleveland • Philadelphia • Pittsburgh • San Francisco

CAR BUILDERS TO AMERICA'S RAILROADS

Alloy Steels

Save Weight

. . . because they can be used in thinner sections—without loss of strength and toughness



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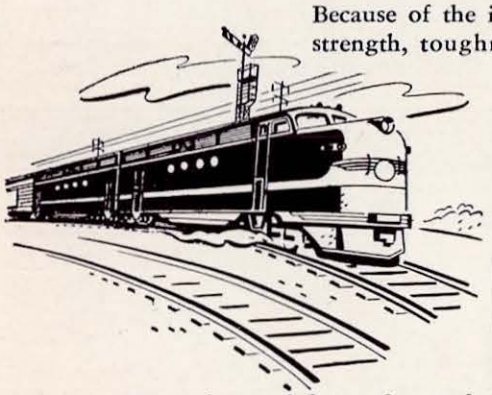

Republic ALLOY STEELS

REPUBLIC STEEL

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Acceptance

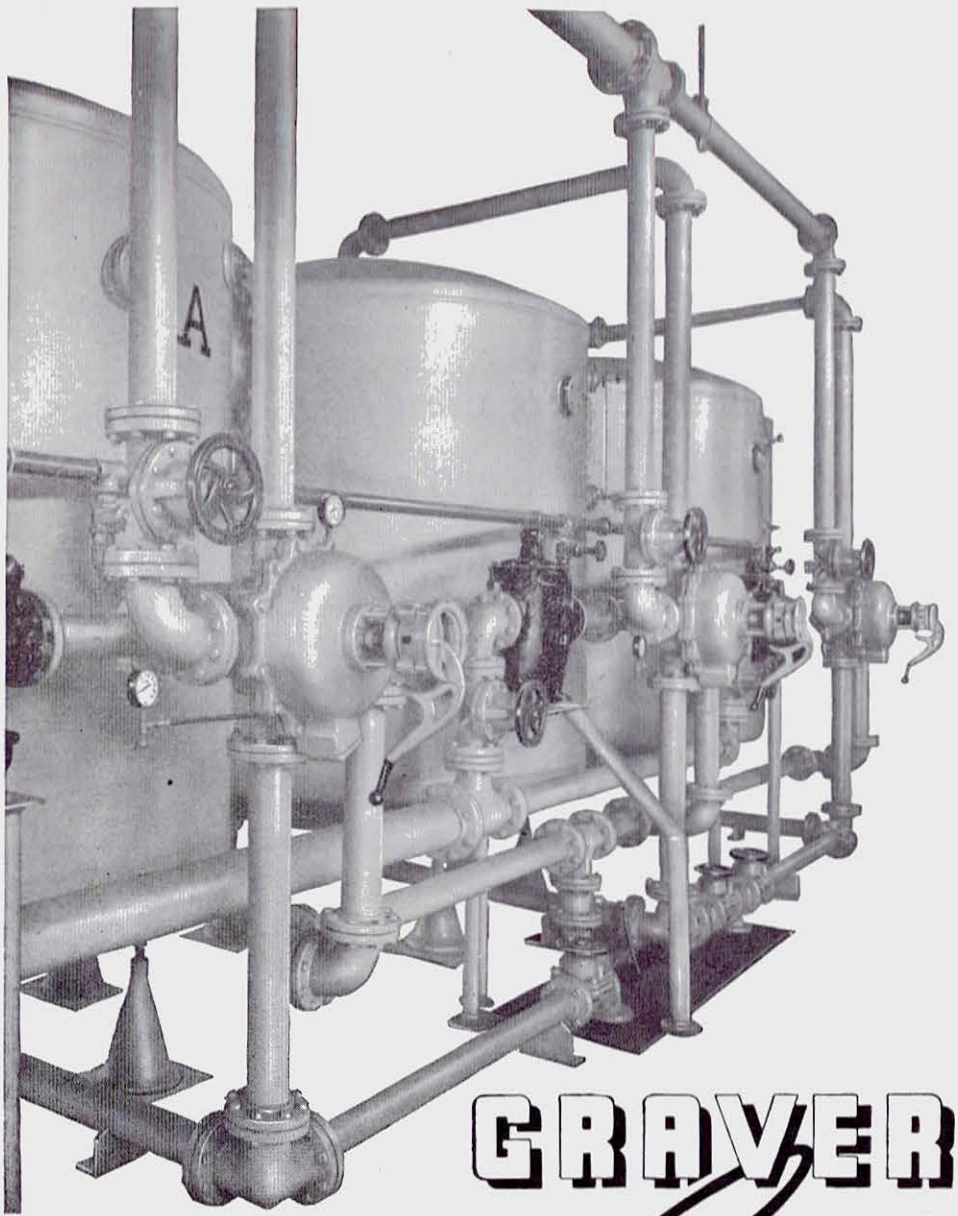
Twenty-five different users already have ordered more than 26,000 car sets. Seldom has any new product received such a *spontaneous* acceptance.

★ *Lighter*
★ *Stronger*
★ *Permanently Rigid*

A·S·F CAST-STEEL UNIT BRAKE BEAM

AMERICAN STEEL FOUNDRIES

MINT-MARK OF FINE CAST STEEL



GRAVER

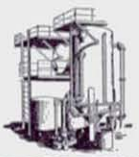
THE EQUIPMENT *Experience built*

Simple or complex, your water conditioning problem can be solved efficiently and economically with Graver equipment... the equipment experience built. Why? Because Graver offers a complete line based on over thirty-six years of design and manufacturing.

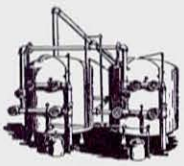
The unit above, a sodium zeolite ionic exchange installation will solve your problem where hardness in the form of calcium or magnesium salts must be removed. If hardness, plus the total dissolved solids, must be reduced or eliminated then the hydrogen zeolite cycle unit or demineralizer is required.

Sodium zeolite is suited to one job, hydrogen zeolite to another, but where all minerals are to be removed, the Graver demineralizer will do the job.

With Graver's complete line of water conditioning equipment you are certain of recommendations best suited to your particular problem. A letter or call will bring you the details.



HOT PROCESS SOFTENERS



FILTERS

DEMINERALIZERS

REACTIVATORS

WATER CONDITIONING AND
PROCESS EQUIPMENT DIVISION
GRAVER TANK & MFG. CO., INC.
East Chicago, Indiana
NEW YORK • PHILADELPHIA • CHICAGO

"one on the aisle"

Magnified Paratex—Countless tiny spring-like coils of curled hair covered with rubber and vulcanized. Air flows freely, even when weight is applied, assuring restful "air conditioned" seating comfort.

Weight-conscious aircraft manufacturers insist on Rubberized Curled Hair. Weight-conscious bus builders and operators, too, turn to Paratex for weight reduction.

Your passengers will never be "bounced into the aisle" from "jack-rabbit" mattresses or cushions, if your seating and mattress are filled with Paratex—the Original Rubberized Curled Hair ★ ★ Paratex is cool—resilient—won't mat or bunch. Gently supports the weight, yet "breathes" with every movement of the body.

There's nothing to compare with genuine curled hair—Rubberized for permanent porosity. The ideal filler for travel—comfort and operating economy. Send for Free Booklet "The Inside Story of Curled Hair."

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BLOCKSOM & COMPANY

MICHIGAN CITY · INDIANA

GREATER REVENUE, LOWER COST in freight car operations —

U·S·S ONE-WEAR WROUGHT STEEL WHEELS

THE record of One-Wear Wrought Steel Wheels in freight service shows that they average considerably more than 200,000 miles under 50/55-ton service . . . over 160,000 under 70-ton service. Such long service without wheel changes means that freight cars are in operation for longer periods, thus producing more revenue.

Ability to endure heavy brake action and impact at high speeds gives One-Wear Steel Wheels a high safety factor.

Railroads having U·S·S One-Wear Wrought Steel Wheels now in service have learned through the years the economic advantages of using these rugged, safe, long-lasting wheels.

CARNEGIE-ILLINOIS STEEL CORPORATION, PITTSBURGH AND CHICAGO
COLUMBIA STEEL COMPANY, SAN FRANCISCO, PACIFIC COAST DISTRIBUTORS
TENNESSEE COAL, IRON & RAILROAD COMPANY, BIRMINGHAM, SOUTHERN DISTRIBUTORS
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

8-745

USS

UNITED STATES STEEL

"Sure feels good on the controls . . ."

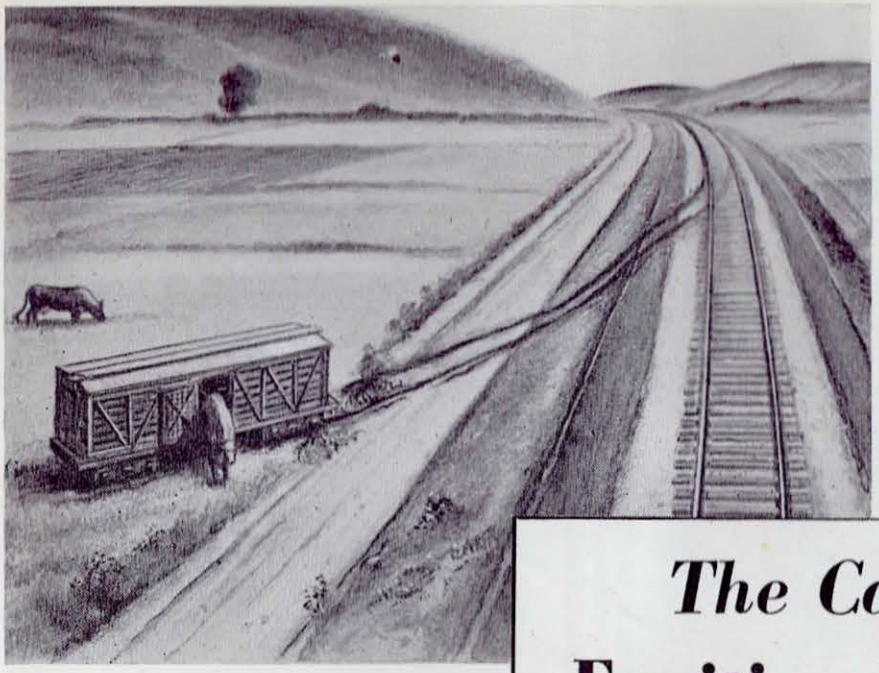
Old hands speak this way when first introduced to any of the great Fairbanks-Morse Diesel locomotives . . .

It's a first impression that lasts as the mileage mounts; as everyone, from engineer to president, gets a new idea of high availability with low running repairs and minimum shopping expense. Fairbanks, Morse & Co., Chicago 5, Ill.

When it comes to locomotives **FAIRBANKS-MORSE**

A name worth remembering

DIESEL LOCOMOTIVES • DIESEL ENGINES • STOKERS • SCALES • MOTORS • GENERATORS • PUMPS • RAILROAD MOTOR CARS and STANDPIPES • FARM EQUIPMENT • MAGNETOS



The Case of the Fugitive Freight Car

COE LITTLE, early Erie conductor, was a puzzled man as he checked his waybill at Port Jervis and found he was minus a loaded cattle car. And right out of the middle of the train, too! While he was scratching his head over the mystery, a telegram came from the agent at Shohola, 16 miles away. Had anyone lost a stock car, perchance? If so, an empty one, doors open, was standing in a field alongside the track not far from the station. This only deepened the bewilderment. The explanation came later, constructed from clues.

While the train was rolling downgrade, the errant car's forward coupling pin had snapped. The link, broken and twisted into a rude hook, stayed in the drawbar of the car ahead. Next, the car jumped the track, parted company with the one behind, plunged down a ten foot embankment, and finally came to rest in a field across the paralleling wagon road. Then the free end of the train caught up with the front, and somehow the two links hooked together. It happened so gently that none of the crew was the wiser. This was, of course, before the days of the air brake.

Today, a quandary like Conductor Little's could not happen, thanks to the technical progress which has made railroad transportation dependable. Edgewater, through its quality products, has contributed to that progress.

Edgewater

Serving America's Railroads

RING SPRING DRAFT GEARS

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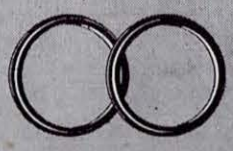

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Hystaway is both a production and utility tool. On a new or old "Caterpillar" D8, D7 or D6, it can be mounted by 2 men in 2 hours and taken off in 1 hour (after initial installation).

Hystaway plus "Caterpillar" track-type mobility is setting performance records for ½-yard machines that make important news to construction men: increased production; lower job costs; faster work schedules . . . **Your "Caterpillar" distributor can arrange a Hystaway demonstration and provide *current delivery*.** See him soon. Write for detailed literature.

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If you are interested in improving or expanding your communications facilities, let us show you the many advantages of modern printed communication.

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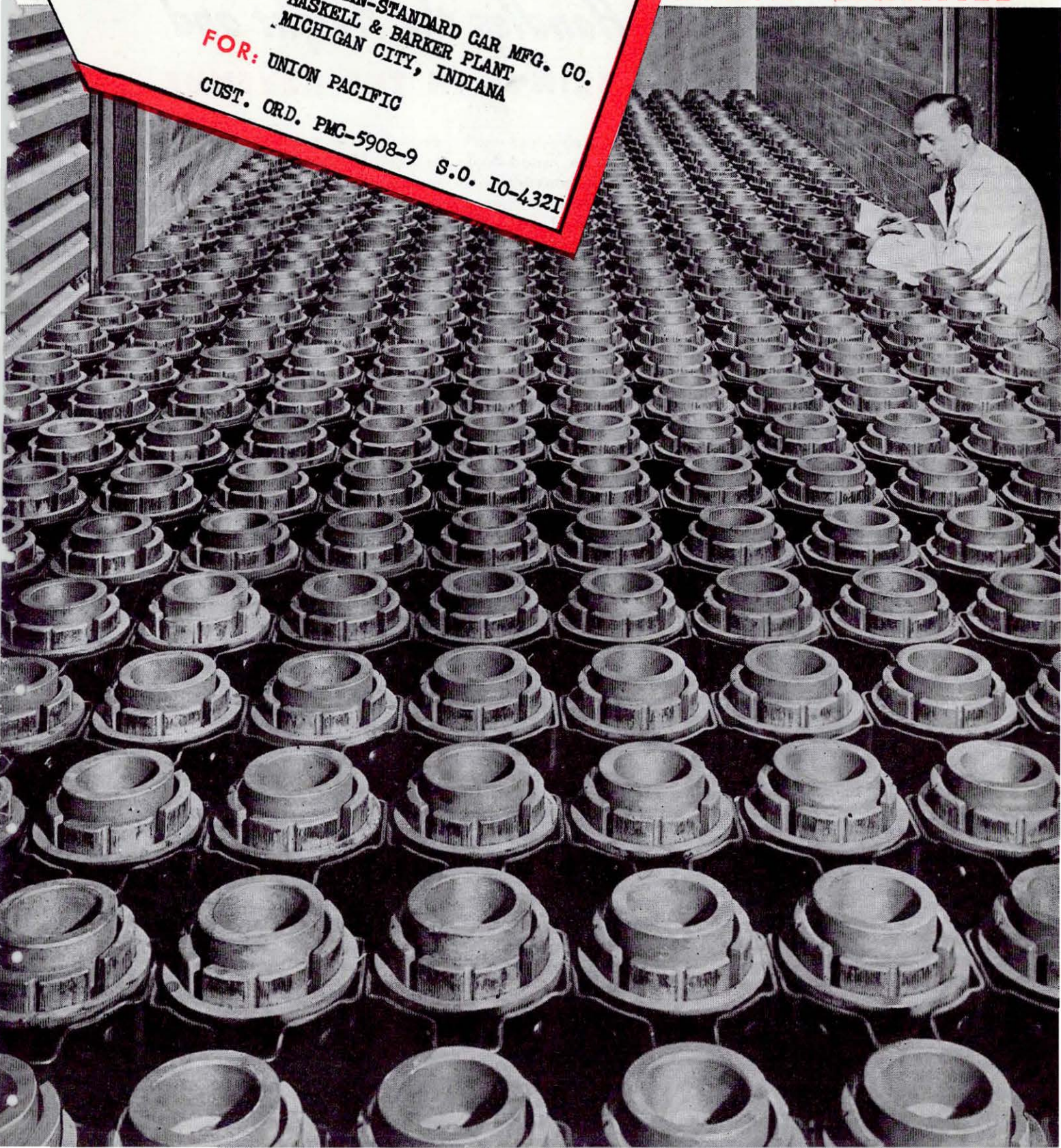

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Are Profit Eaters!

ALL-PURPOSE

NAILABLE STEEL FLOORING*

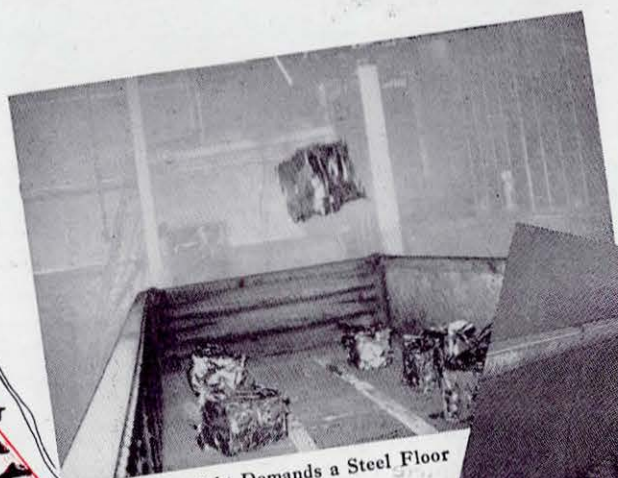
Handles the Freight and

BRINGS IN THE REVENUE

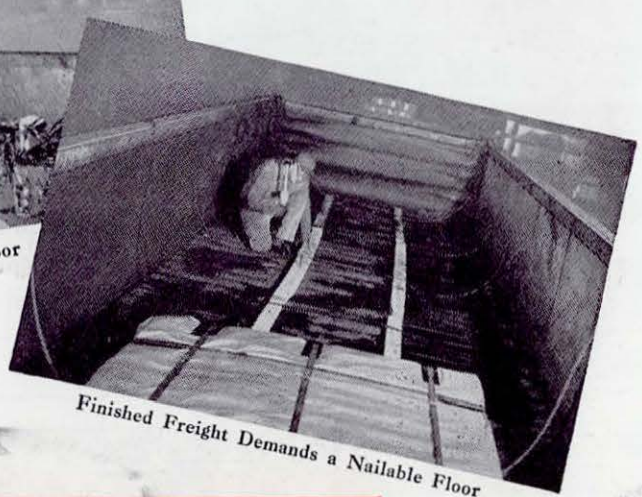
These photographs show why shippers can't load rough, heavy freight in wood-floor gondolas or blocked loads in conventional steel-plate-floor cars. The result?—when a shipper's incoming freight and outgoing products require different types of flooring, his sidings fill up with useless empty cars. You've got to haul these away and send him *additional* cars with floors suitable for his outbound lading. This switching and road-hauling of non-revenue-empties is a profit-eater for the carrier, a car-supply-cutter for the shipper.

Contrast this with the situation when a shipper receives his incoming freight in gondolas equipped with NAILABLE STEEL FLOORS. He can use the same cars for his outgoing products because NAILABLE STEEL FLOORING is suitable for *all* types of open-top lading—rough freight, finished goods, fine bulk commodities; steel scrap, farm machinery, core sand. If there's a load available, the gondola with the NAILABLE STEEL FLOOR will take it—and not require an empty haul. For railroads this means lower operating costs and more revenue; for shippers, better car supply.

Check the shippers on your line to see how many get open-top cars in their plants that are unsuitable for their outbound lading. We think you'll find you can ease car shortages and *save money* by converting your gondolas to *payload* cars with NAILABLE STEEL FLOORING.



Rough Freight Demands a Steel Floor



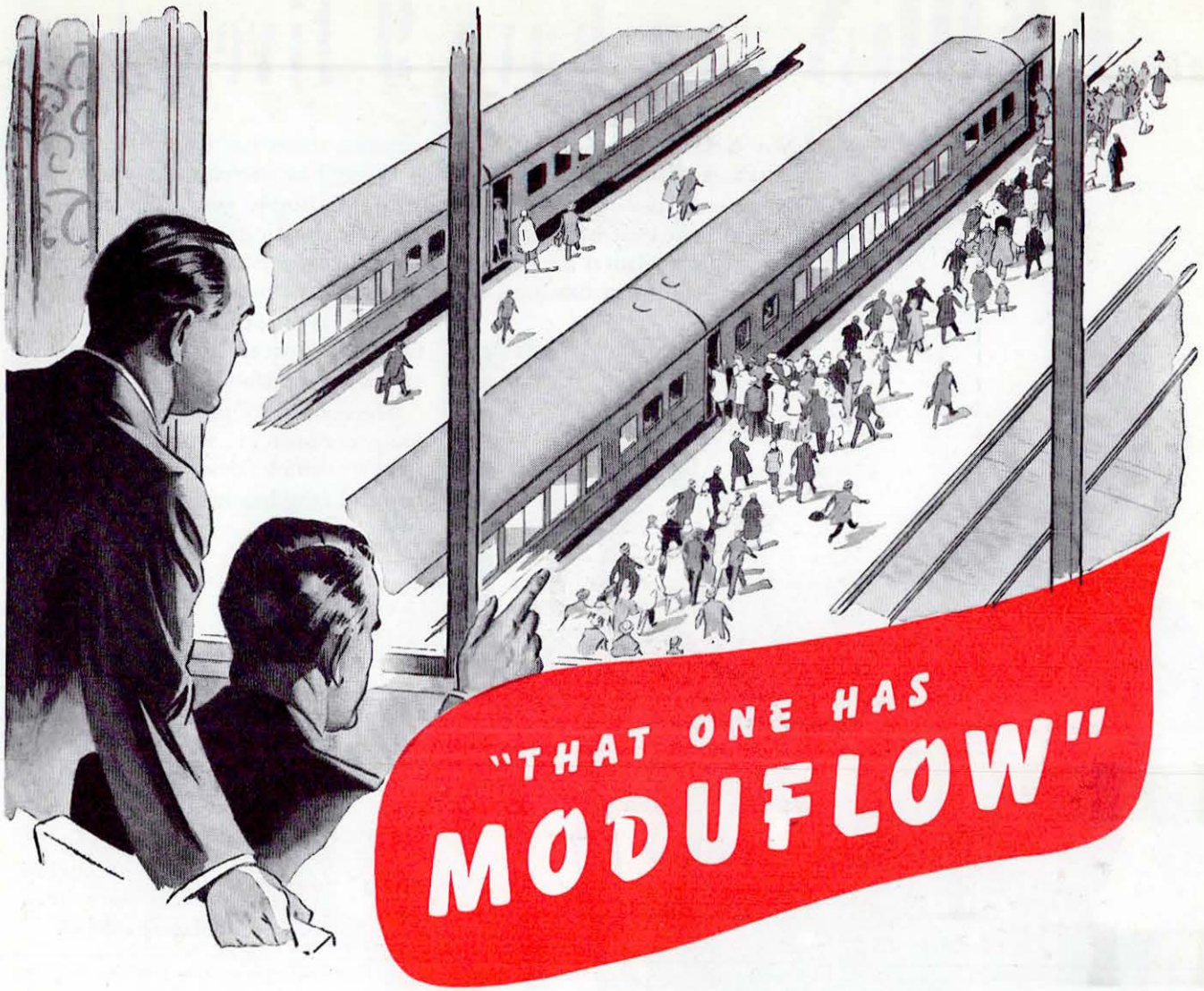
Finished Freight Demands a Nailable Floor

*PATENTS PENDING

GREAT LAKES STEEL CORPORATION

STEEL FLOOR DIVISION, PENOBSCOT BLDG., DETROIT 26, MICHIGAN

UNIT OF NATIONAL STEEL CORPORATION



PASSENGERS are quick to detect improvements in comfort, and that's why the rush is on for the car equipped with Honeywell's *Electronic* Moduflow. For Moduflow means comfort for every passenger—not just temperature control.

With this advanced system, the floor heat surfaces are controlled to counteract the effects of cold sidewalls and windows. Overhead and floor heating units work together as a team to make every seat in the train equally comfortable. Heat supply is proportioned continuously—instead of cycled—to the car's heat loss. Compensation is made quickly and automatically for such varying factors as sun and shade, outside temperature changes and passenger loads. Change-over from heating to cooling is smooth and automatic so that even in mild weather car temperatures remain stable.

Electronic Moduflow is part of a complete car heating system for all new and existing passenger cars. Get the whole story today. Just mail the coupon to Honeywell—world's largest manufacturer of controls.

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RAILWAY CONTROLS DIVISION

MINNEAPOLIS-HONEYWELL REGULATOR COMPANY
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Please send free copy of manual entitled "Honeywell Announces Electronic Moduflow for Railway Cars."

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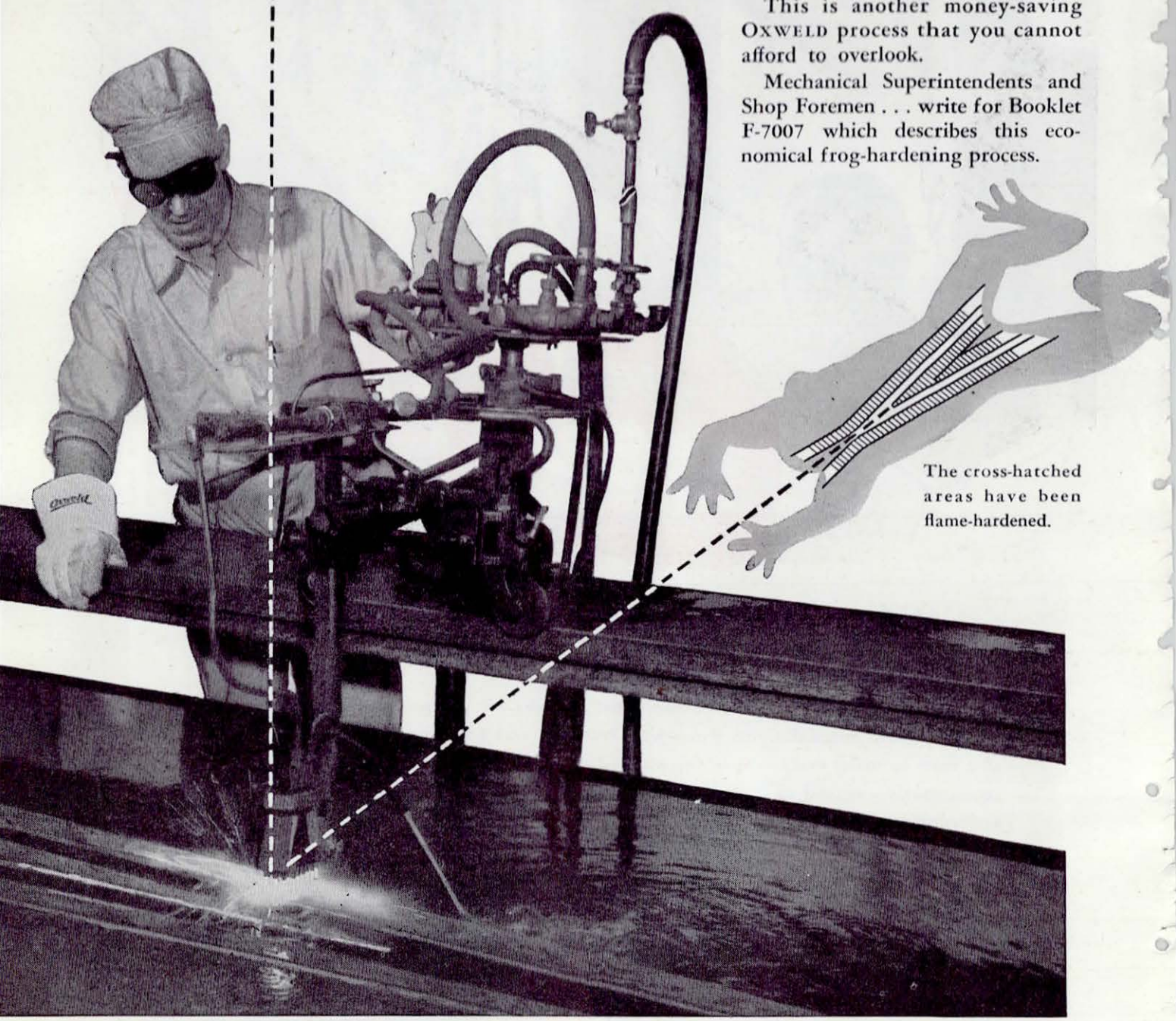
This recently developed OXWELD method is simple and economical. A single multiflame heating head is used—no extra heating is required to draw or temper the hardened areas, and no special coolants are needed. Treated surfaces have uniform hardness values, correct hardness depth.

This is another money-saving OXWELD process that you cannot afford to overlook.

Mechanical Superintendents and Shop Foremen . . . write for Booklet F-7007 which describes this economical frog-hardening process.



The cross-hatched areas have been flame-hardened.

This flame-hardening blowpipe is mounted on a standard OXWELD CM-16 cutting machine.

THE OXWELD RAILROAD SERVICE COMPANY
Unit of Union Carbide and Carbon Corporation

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New durable finishes protect and beautify modern passenger trains!

WHEN so many of America's important railway lines choose Pittsburgh Lavax Exterior Locomotive and Passenger Car Enamels as protective coatings there must be a good reason for this overwhelming preference.

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In appearance, Lavax Enamels have a sharp high gloss that retains its brilliance because it resists dirt collection. Its hard but elastic film resists abrasion and withstands an unusual amount of scrubbing and cleaning. Because it dries speedily, Lavax meets the demands of the stiffest production schedules.

Lavax Enamels are recommended for steam, Diesel and electric locomotives and all types of passenger cars.

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To Sum it up Quickly...

...nothing can beat an UNDERWOOD SUNDSTRAND Adding-Figuring Machine

Her fingers ripple over the 10-numeral keyboard ... touch a motor bar ... and there's her total.

It's as simple as that ... and as fast.

The keys of the Underwood Sundstrand are arranged in natural sequence under the finger-tips of the right hand. Even untrained operators pick up the "touch" method ... after a few minutes' practice.

This machine is quiet, too. Key action has been cushioned ... operating noises muffled. There's no annoying jar or clatter to hinder concentration. As a result operators are more relaxed ... *and more accurate.*

Yes, for speed, simplicity, accuracy in adding and figuring you're sure to agree ... there's nothing like an Underwood Sundstrand. For a complete demonstration call your nearest Underwood representative today!

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1. **SPEED.** World's fastest keyboard. Only 10 numeral keys under the finger-tips of one hand.

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3. **NO HEAD SWINGING.** Operators keep their eyes on their work ... *not the keyboard.*

4. **MADE IN MANY MODELS.** Made in sizes and models to fit any business ... large or small.

5. **WORLD LEADER.** Backed by 50 years of craftsmanship and research in producing typewriters, adding-figuring and accounting machines which "Speed the World's Business." Sales and service everywhere.

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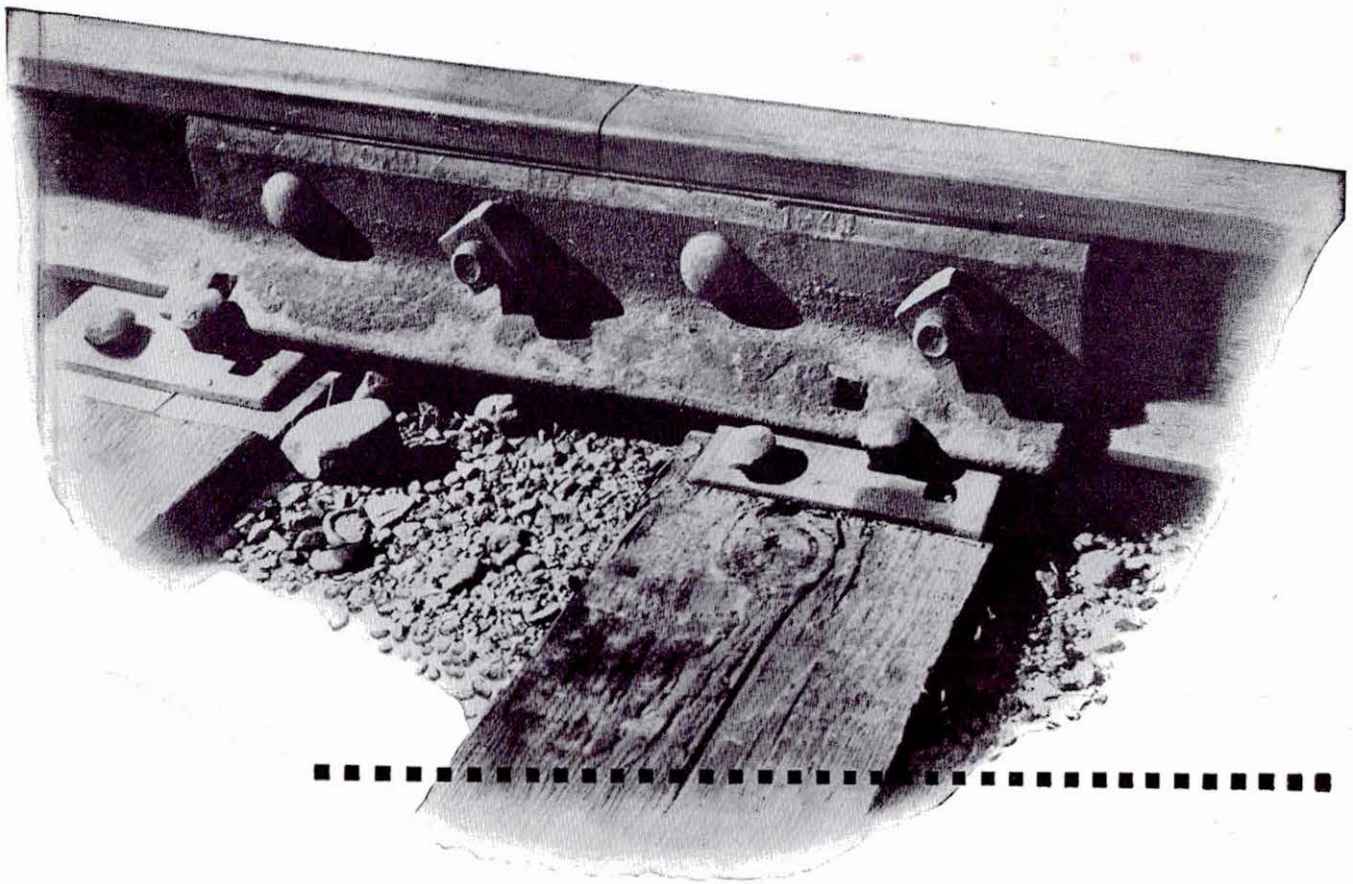
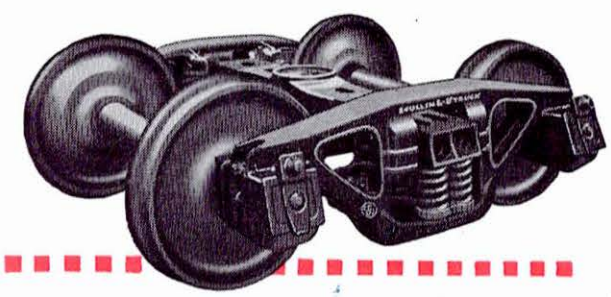
THIS is where destructive bounce and sidesway begins...



AND THIS is the SCULLIN L-V TRUCK

LATERAL VERTICAL CUSHIONED MOTION

that completely cushions both lateral and vertical motion before it can cause damage... makes high speed safe for lading, cars and track.



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SCULLIN STEEL CO.

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NEW YORK • CHICAGO • CLEVELAND • BALTIMORE • RICHMOND, VA. • MEXICO CITY, D. F.

Passengers ask the *darndest questions*

For example, the young lady just asked, "Why don't other trains stop nice and smooth like this one?" She probably wouldn't understand if the conductor explained about "HSC" brakes . . . but she'll remember and tell her friends about the smooth ride.

You can take a long step forward toward making your passengers enjoy their trips by equipping your trains with the "HSC" Electro-Pneumatic Brake. It is the most effective brake ever devised for controlling passenger trains. In addition to handling the primary task of train retardation it functions with amazing smoothness — the direct result of simultaneous application or release of braking forces on every car in the train. In doing that, slack action vanishes and passenger comfort is enhanced.

Today, railroad men, carefully weighing safety and passenger comfort, specify this Westinghouse group for their trains:

***"HSC" Electro-Pneumatic Brakes* . . . for braking flexibility to match modern train speeds, and unequalled smooth action**

***Speed Governor Control* . . . for regulating braking forces to wheel speeds**

***"AP" Decelostat* . . . for wheel slip detection to keep the wheels rolling.**

Brakes are Basic to Railroad Progress

Westinghouse Air Brake Co.

WILMERDING, PA.

Vol. 124, No. 24 June 12, 1948

RAILWAY AGE

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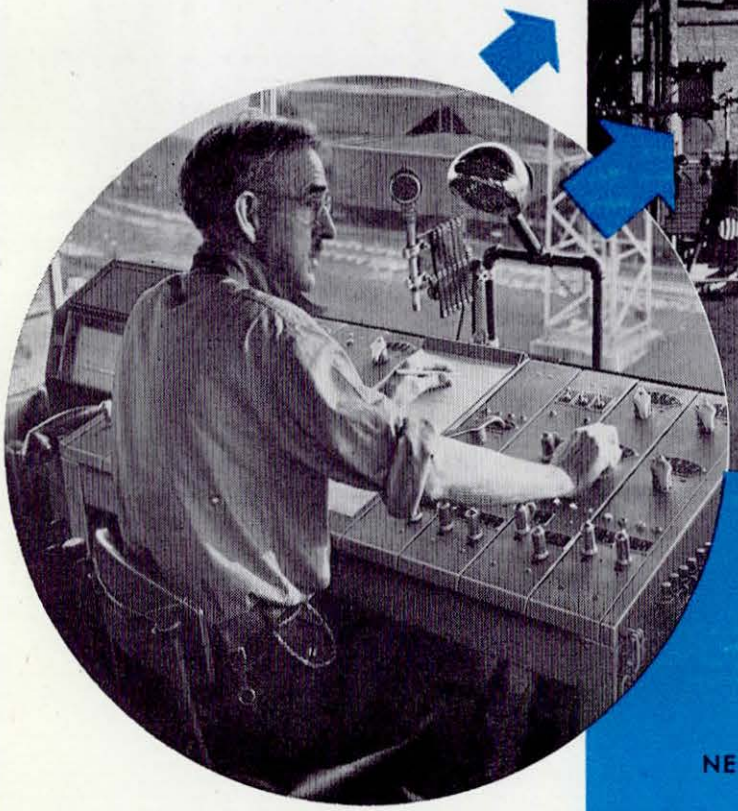
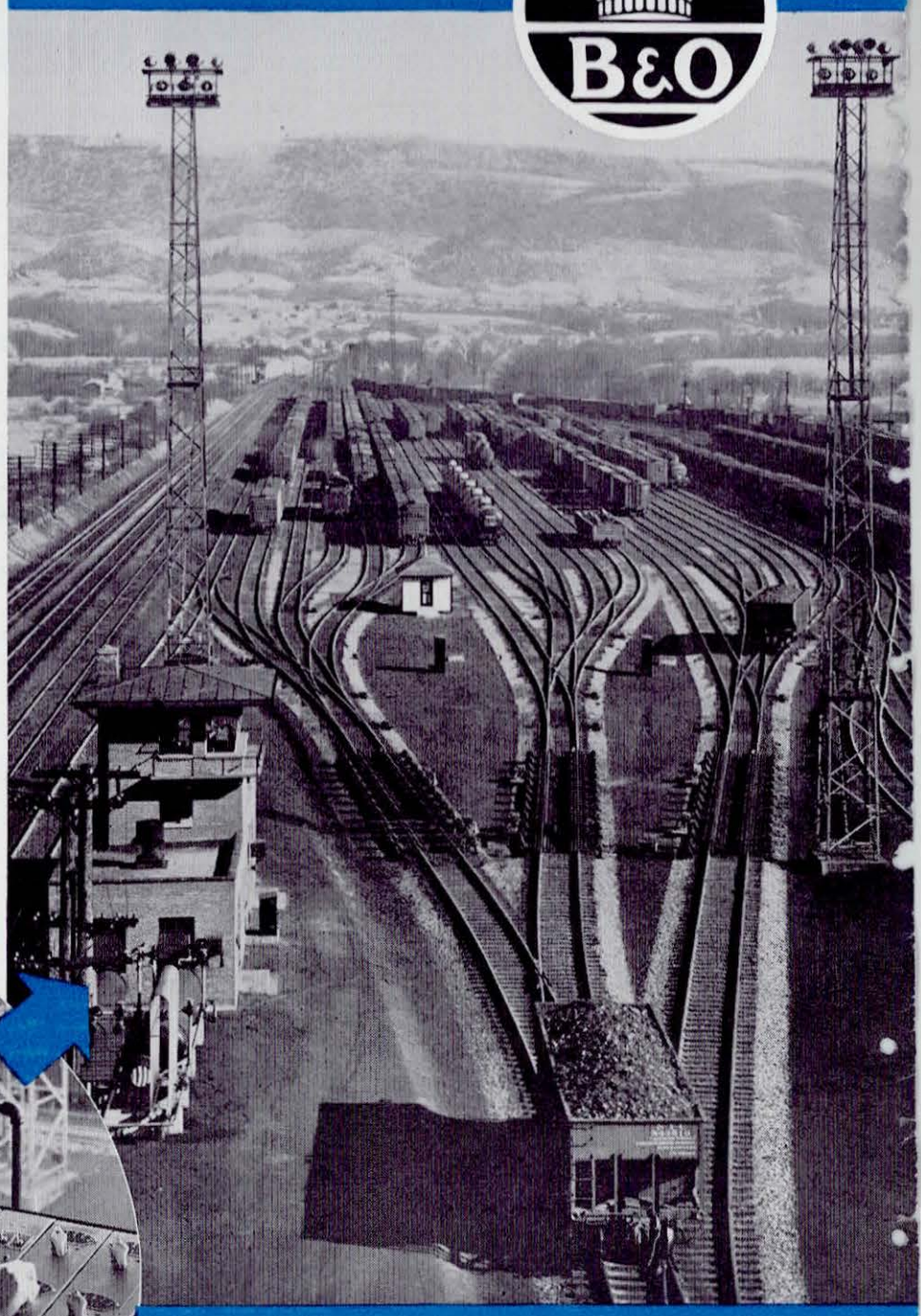
SPEED FREIGHT CLASSIFICATION ... on the B&O

In the classification yard at Cumberland, Md., this "Union" Car Retarder installation is expediting freight and cutting costs for the Baltimore and Ohio Railroad.

From his vantage point in the tower, one operator controls the four retarders and routes cars into sixteen classification tracks. "Union's" exclusive electro-pneumatic operation provides four different degrees of retarding pressure . . . instantly available . . . to handle cars of different weights at varying speeds with equal ease and safety.

Specify "Union" Retarders for your next yard improvement program. They can help your railroad, as on the B. & O., achieve faster, better service to shippers and secure greater use of rolling stock—at lower costs to you.





UNION SWITCH & SIGNAL COMPANY

SWISSVALE PENNSYLVANIA

NEW YORK CHICAGO ST. LOUIS SAN FRANCISCO

WEEK AT A GLANCE

LUBRICANT FOR LABOR RELATIONS: There may have been a time when management had to play hunches and learn by the slow and painful processes of experience, if at all, the most effective ways to deal successfully with problems of labor relations. But counsel in human relations matters is available now, and by taking full advantage of it management can contribute materially to the development and maintenance of harmony in its dealings with the unions. Our editorial comment on this topic emphasizes the necessity for the fullest use of this technique by management—even though there are selfish union leaders and politicians who prefer to defeat its purposes—because prolonged industrial strife that interferes with the operation of essential utilities and services is something the public is not going to put up with indefinitely. Indulgence in warfare in preference to peaceful negotiation, when there are disputes between management and unions, probably will lead to loss of the freedom to negotiate, a loss that management must extend itself to avert.

THE NEW NEW HAVEN: Having many of the characteristics of a terminal road and many of the difficulties of a commuter-carrying suburban line, the New Haven has found the going unusually tough in the changing circumstances under which it has had to operate since World War I. What it has done (and what the Interstate Commerce Commission has done to it) in the way of adjustment to its new economic environment is related in one of our articles this week (page 43).

EFFICIENCY INDICATOR: The Atlantic Coast Line has discovered that substantial improvements can be made in the way its Diesel-electric locomotives are operated, and that profitable reductions can be obtained in maintenance and parts replacement expenses, through the regular use of recording devices that portray the mile-by-mile changes of the throttle, transition, and the reverse lever. The experiments that led to this conclusion are outlined in an illustrated article by J. D. Loftis (page 50).

DESIGNED FOR HARD WORK: The details of design and construction of the now standard 1,500-hp. road Diesel built by American Locomotive-General Electric are reviewed this week in the article on page 38. The electrical equipment includes turbo-supercharger, amplidyne generator exciter, and electro-hydraulic power plant regulator, all contributing to the efficient functioning of a unit producing 57,500 lb. starting tractive force.

SAID WITH STRAIGHT FACES: Whether the brothers' bosses are in as deep a fog as they appear to be in is possibly the enigma of the year. Their contradictory behavior is pointed up sharply by two items in this week's news columns. The first, reporting a June 6 radio debate between Trainman Al Whitney and President Woodruff of the Erie—on whether or not the railroads should be nationalized—quotes the former as saying "the Railway Labor Act is practically broken down." The second, reporting hearings in a congressional labor-management relations investigation, quotes the June 8 statement of B. A. Whitney, the Trainmen's researcher, as saying the same Railway Labor Act has been so "unusually successful" that it ought not be disturbed—especially not by any legislation whereby the brothers would be subject to the Taft-Hartley Act under which other unions must live. Which Whitney charts the course, or does the course change with the hours?

ONLY THE NAME'S THE SAME: Travelers on the Frisco-Katy route between St. Louis and Texas have smarter, faster streamlined "Texas Specials" to ride in now, as each road has received a 12-car Pullman-built train for this joint run. And the Milwaukee's Twin Cities "Hiawathas" are sporting 1948-model equipment, too, produced specially for them, this being the fifth time in 13 years that distinctive new cars have been provided for these trains. Illustrations in this issue depict some of the advances in appointments and adornments that characterize these well-established trains.

PREPAREDNESS INSURANCE: The House interstate commerce committee, as part of its general inquiry into the national transportation situation, has been seeking some light this week on whether the railroads are prepared for another war. Our summary of the testimony (page 59) indicates that there is authoritative, but not undisputed, optimism—so far as the immediate present is concerned. Whether the railroads will be equally ready later on will depend (and here there was virtual unanimity of expression) on whether the government allows them to make a living in a free competitive economy, and whether it allows badly needed new equipment to be built promptly.

CONVERTING FOR DIESELS: As its active locomotive roster approaches 100 per cent Dieselization, the Monon has made over its principal motive power repair shop to handle the maintenance of its new equipment. The illustrated article on page 54 describes the facilities that have been provided and the arrangements for their systematic use.

NOTED IN THE NEWS: The bill for bigger pensions for retired railroaders is progressing rapidly through this election-conscious Congress, carrying a provision to cut the railroads' taxes for the unemployment reserve to one-half of one per cent. . . . The Class I roads' net for this year's first four months—with the benefit of "interim" rate increases—was $100 million, or $31 million less than 1947. . . . The builders delivered 9,192 new freight cars in May, leaving the 10,000 "average" still to be attained. . . . The Southern Pacific plans to buy 95 more freight and switching Diesels.

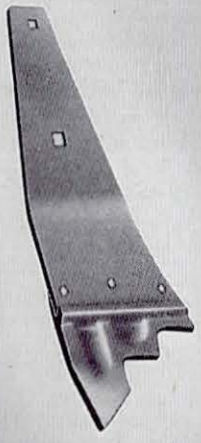
Champions

in EVERY TYPE of BALLAST and ANY LIFT-OF-TRACK–

Surfacing, Spotting, Skeletonizing

3 Quickly interchangeable Blades

Assure Peak Performance universally



BLADE No. MT97-A1

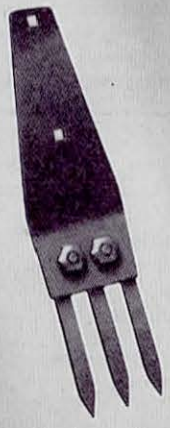
(left and right)

The "SPEED" blade for moderate to high lift surfacing and for the lower lifts where finer ballasts are used. The tip of this blade is 9 inches wide.

BLADE No. U625-1A

(left and right)

Most universally used for all operations in gravel, slag or 1½" to 2" stone, including "Spotting." Point acts as a pick for opening hole beneath tie.



BLADE No. U-609

For removing badly cemented ballast in tie renewal or skeletonizing operations, removing ice around the track or grading work in frozen ground this blade really does a job.

What a full set of specially designed tools is to the skilled mechanic, the three quickly interchangeable blades are to Jackson Vibratory Tampers. They permit doing each job with the greatest possible dispatch and in the most efficient manner. For the "all-over" job of track maintenance, including surfacing, spotting, skeletonizing, ice removal—all major ballast placing operations — Jackson Tampers and Power Plants lead all other equipment by a wide margin. This irrefutable fact can easily be proven on your own track. If interested, drop us a line.

JACKSON vibratory tie tampers

ELECTRIC TAMPER & EQUIPMENT CO. LUDINGTON MICHIGAN

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IN TIME OF WAR PREPARE FOR PEACE

There are three ways of settling disputes between management and labor unions—(1) bargaining (including voluntary arbitration), (2) government action and (3) fighting it out. Government action tends to deprive one or both parties to a dispute of too much freedom. Fighting out disputes in essential industries inflicts such losses and suffering on the public that the public will not long tolerate it.

Theoretically, the ideal means of settlement is bargaining, including, if it is necessary, voluntary arbitration. Why, then, is it usually so difficult or impossible to get settlements by direct bargaining or voluntary arbitration? One principal reason, undoubtedly, is that the parties to disputes have made no real efforts to make themselves understood by each other *between disputes*. For example, the railroads have shown an inexplicable reluctance, at times when they have been engaged in no disputes with the unions, to trying to tell railroad employees facts about the railroad business which should have been enlightening to employees about what management could and could not do. Gross exaggerations of earnings in the union press have passed virtually ignored. Consequently labor leaders have been able to get support from employees for demands which to impartial observers have seemed so unreasonable as to border on the ridiculous.

"In time of peace prepare for war." Also, in industrial relations, in time of war or peace prepare for peace—i.e., try to say and do the things which will prevent disputes or which, when disputes come, will contribute to their settlement without government intervention or resort to force.

Facts Are Now Available

There is a much better excuse for the managements of times past whose lack of foresight permitted existing differences to attain their full maturity than there will be for the present generation of managers if strife continues—because two or three decades ago, and even more recently than that, dependable information on how largely to avoid industrial warfare was meager and inexact. Managers who, in the mid-Twenties and even later, availed themselves of and put into practice the most complete scientific knowledge on employee relations then obtainable still could, at best, have circumvented only a part of the trouble which has since arisen, because adequate and accurate information on how to arouse, retain and intensify employee interest and loyalty was not then to be had in the market place.

Wisdom in such matters in those days was for the most part the possession only of those who were born with it. Today it is available to the

management of any enterprise which will seek out and compensate professional skill in this field in the same way that it employs guidance from other skilled professions. There is only one notable difference—quacks and charlatans invariably abound in a new field of salable knowledge, and more caution is required in engaging the services of a skilled hand in human relations than in choosing a counselor in an older profession where the qualifications of practitioners are more carefully policed.

Almost all managers of businesses are today at least half aware of this problem and are determined to "do something about it." But the temptation to half-measures and palliatives is strong. Some believe that repeated pontifical utterances on the invariable rightness of managerial policy should be sufficient to turn the trick—and, if that effort fails, then the problem must be insoluble. The fact is, though, that explaining managerial policy to employees is merely the paint job to be put on the structure of sound relations when the edifice is otherwise practically complete. The first step is not that of explaining management to employees, but of explaining employees to management—so that, when management does get around to explaining itself to employees, it will know what explanations employees want; and what kind of management policies will satisfy them. There were many practical pointers on solutions to this problem in the article by Dr. Claude Robinson—one of the great pioneers in this field—in our last week's issue.

Desires Difficult to Formulate

Non-economic incentives—here is a jaw-breaking term in the jargon of employee relations, but every person in any supervisory capacity in any business ought to know what it means. All "non-economic incentives" are *those things about a job besides the pay-check which make a man like his work.* The treat-'em-rough-and-tell-'em-nothing school of management robbed work in industry of most of its "non-economic incentives," and gave rise to the constantly growing demand for larger economic incentives, i.e., more and more pay for less and less work.

Non-economic incentives are difficult to express in terms of quantity. Hence they are seldom the subject of union demands. Most people want to "be somebody" besides a number on a payroll—they want to be asked their ideas about the business occasionally, and to have a reputation for something besides "a strong back and a weak mind." If, however, they do not get the kind of recognition they crave but cannot specify in concrete terms, they can always get some salve for their wounded feelings in the form of a wage demand which is easily expressed in figures. But such salve only eases the pain without ending it, so the demands for it are insatiable, like that for any opiate.

Communication — and, in particular, *two-way communication*—these are also terms which, if adequately understood, carry their own conviction. In a society which has become much nearer a popular democracy than the representative republic instituted by the founding fathers, owners and managers of business will retain their prerogatives only to the degree that people generally believe and understand that the common welfare is enhanced by entrusting leadership to them. "Two-way communication" means finding out what the popular constituency—employees, customers, and "public"—want from those who conduct business; and then gaging performance to meet this demand, learning at the same time how to explain in understandable language to the sovereign people how faithful the stewardship is.

The place of top management in the solution of this problem lies in learning enough about it to realize its transcendent importance and to be able to distinguish between competence and incompetence in performance by the specialists to whom the details of the program are entrusted. A healthy optimism on the part of the management is indispensable. No group of employees or customers will be able to wax enthusiastic about a business which appears to be looked upon by the management as a moribund enterprise in process of liquidation.

The active fight must, of course, go on against current intolerable union demands and the pouring out of billions of tax funds to provide, free of charge, improved plant for rival agencies of transportation. But that is only a part of the job, which is not merely to win battles but to win the war. Forestalling effective hostilities by the enemy in future is just as important as not being hopelessly defeated by him today. What is now an acute malady must not be permitted to become a hopelessly chronic and perhaps fatal affliction.

WARREN KENDALL

O. Henry introduced in one of his stories a character of the substantial-citizen type. He described that character, Old Jerome Warren, as a "board-walk," explaining the description in this way: "Everybody knows that the world is supported by the shoulders of Atlas; and that Atlas stands on a rail-fence; and that the rail-fence is built on a turtle's back. Now, the turtle has to stand on something; and that is a board-walk made of men like Old Jerome." One of the "men like Old Jerome" is Warren C. Kendall, who has been

forced by ill health to take leave of absence from the chairmanship of the Car Service Division, Association of American Railroads. Mr. Kendall's distinguished career was reviewed in *Railway Age* of May 29, page 50. He has long been a stout plank in the "board-walk" which provides basic support for the world of railroading.

TODAY'S BIG PROBLEM IN TRACK MAINTENANCE

Recently a small group of top-ranking engineering and maintenance officers, discussing their mutual problems, agreed that the most pressing problem facing them today is that of increasing the output per man-hour of their work gangs to keep maintenance costs within reasonable limits. What was uppermost in the minds of these men was the ascending curve of hourly wages, carrying with it the unit costs of performing all types of maintenance work.

Certainly, this problem is serious enough to justify the closest study by any officer, even at the management level, who is responsible for maintenance costs—and for the condition of the fixed properties, especially the tracks. High train speeds and the necessity of maintaining high standards of comfort for passengers necessitate that the tracks be maintained to the most exacting standards ever required. At the same time these tracks are being subjected to the punishment imposed by a continuing high level of traffic. Skimping to control labor costs is totally inconsistent with such conditions. Reduction of work programs, except temporarily, involves too much risk. The only sound alternative is the adoption of measures to realize more from each dollar expended for track maintenance.

There can, therefore, be no argument with the view that securing increased output per man-hour is the most serious problem facing the maintenance forces. These forces must immediately set themselves to a solution by every means available, including the wider use of power machines, improved gang organization, more careful scheduling of work programs, and extended resort to the practice of performing maintenance work on "dead" track to reduce unproductive time.

However, increasing manpower efficiency is not the only way of giving elasticity to the maintenance dollar. This can be done with equal effectiveness by reducing the need for expending labor through the use of expedients that give more service life to materials and greater durability to the line and surface of the tracks. For example, any measure that will result in longer life for crossties will not only produce savings in the costs of the ties themselves but will also reduce the man-hours consumed in renewing them. Heavier rail not only gives longer service than lighter sections but also, because of its greater stiffness, reduces the amount of labor required to keep the track in line and surface. The need for man-hours is reduced by any measure that gives greater stability to the roadbed.

"Spending to save" is no new principle, but there was never a time when it was more applicable to the situation of the railroads than it is now—especially in track maintenance.

COMPETING FOR IMPROVEMENT DOLLARS

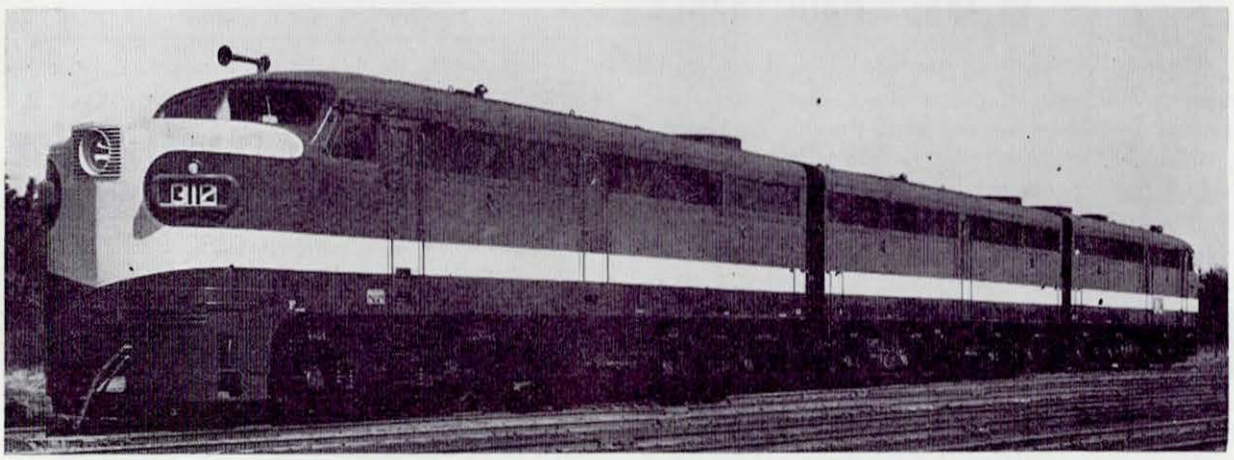
A successful shop engineer has to be a salesman. He may know what new shop tools and equipment are needed to replace obsolete equipment and he may know the changes in shop methods that should be introduced to place operations on an up-to-date basis. This knowledge is important but it is of no use to his railroad if the shop engineer cannot convince the chief mechanical officer of its value and the latter cannot get approval from the management for spending the dollars required to make these improvements. Therefore, the shop engineer has to arm himself with facts on costs and savings before submitting plans for any changes that will seriously dent the funds the railroads have available for improvements.

In backing up arguments for improvements in facilities or practices one shop engineer makes a cost study of the elements involved in the operations affected by the changes, and uses this study as the basis for estimating accurately the savings that will justify the investment. A cost study of the before-and-after kind can be made accurately when present costs are known and future costs are based on the productive capacity of new tools and equipment and the capacity is adjusted to take into account known shop factors that affect the production.

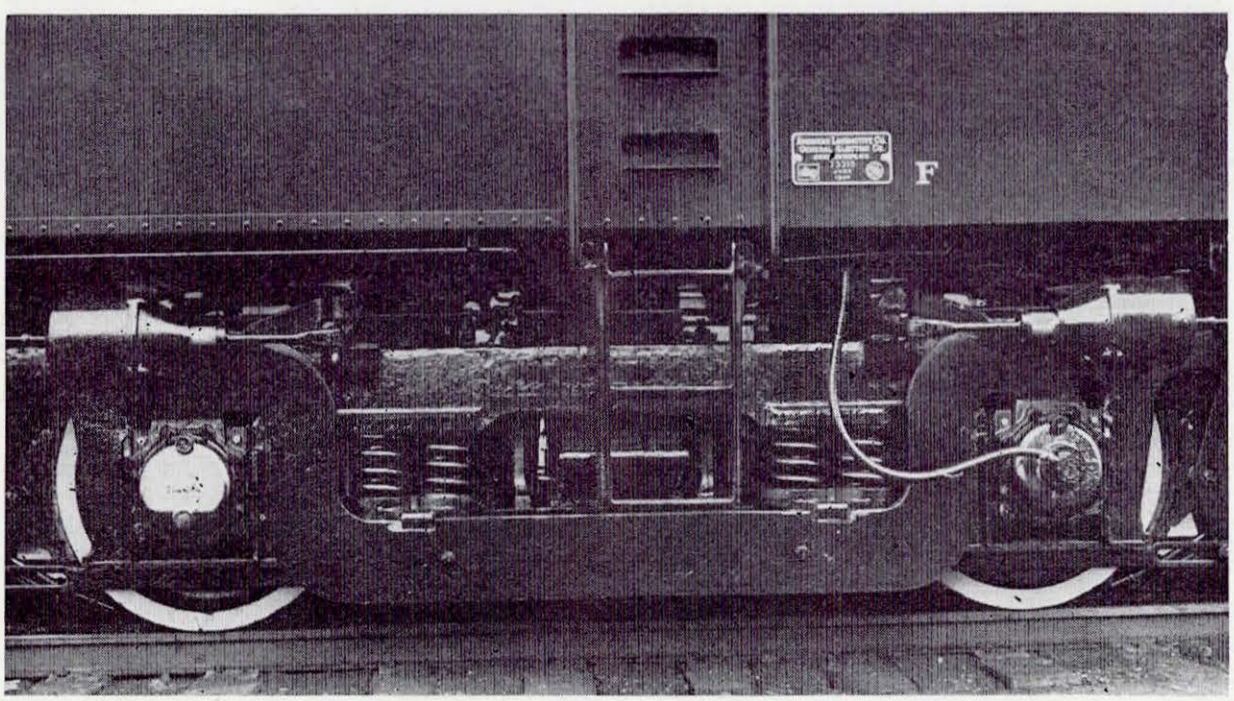
Recently, a mechanical department got through an order for a piece of Diesel shop equipment costing $27,000. Why? Because a study showed that with this equipment three men working eight hours could do a Diesel maintenance job that now requires eleven men working eight hours. When a $27,000 investment will save 64 man-hours a day it stands an excellent chance of getting the nod from management over competing improvement possibilities.

ALCO-G.E. ROAD FREIGHT DIESEL LOCOMOTIVE

Freight power, equipped with 1,500 hp. V-12 Diesel engine, has four-wheel trucks and delivers starting tractive force of 57,500 lb. at 25 per cent adhesion—Three gear ratios available



Three-unit 4,500-hp. Alco-G.E. road freight Diesel



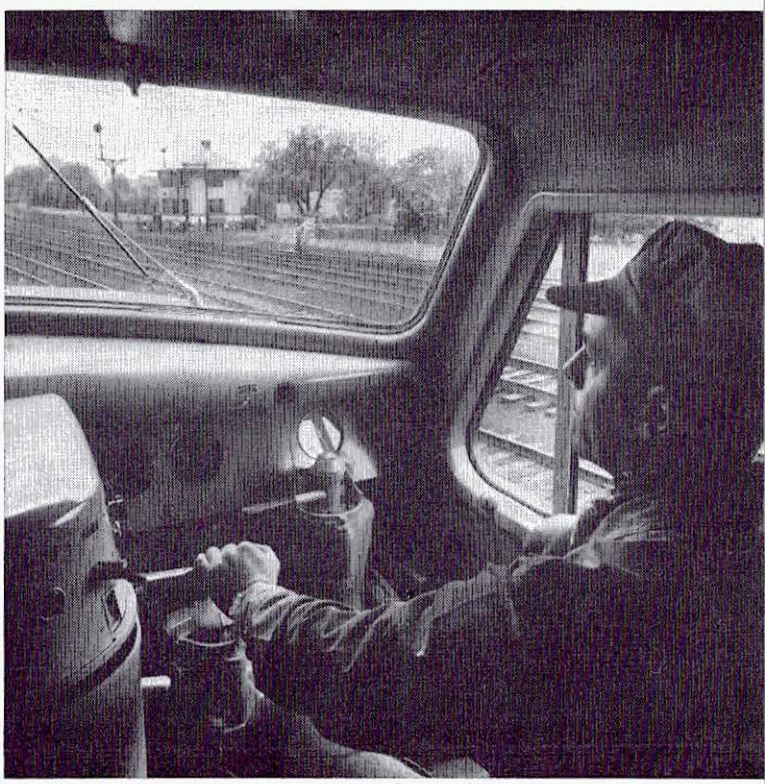
The four-wheel power truck has roller bearings and clasp brakes

By

JOHN P. DE LANEY, American Locomotive Company

and

HARRY M. HARRINGTON, General Electric Company



The operator's side of the cab

Since the first American Locomotive Company-General Electric 1,500-hp. road freight locomotive was completed in 1945, several hundred thousand horsepower of design, in one-, two-, three-, and four-unit combinations, have been ordered by the railroads of this country. It is designed for heavy road haulage and is used in all of these combinations.

Powered by a 1,500-hp. turbo-supercharged V-12 Diesel engine, the locomotive is 51 ft. 6 in. in length between knuckles with a maximum height of 14 ft. 10 in. and a maximum width of 10 ft. 6½ in. Four electric traction motors, each geared to one of the four driving axles, deliver a starting tractive force of 57,500 lb. at 25 per cent adhesion. With 65 m.p.h. gearing it has a continuous tractive force of 42,500 lb.

This unit has capacities of 200 gallons of lubricating oil, 1,200 gallons of fuel oil and 250 gallons of engine cooling water.

The Diesel engine is an Alco Series 244 V-type and has 12 cylinders with 9-in. bore and 10½-in. stroke, supercharged with the G.E. turbo-supercharger. A four-cycle engine, it has two intake and two exhaust valves per cylinder. Construction includes a unit fuel injection system, water-cooled cylinder liners and heads, trunk-type oil-cooled pistons, forged steel connecting rods, seven-bearing crankshaft and welded cylinder block and base.

Engine lubrication through a full pressure system is provided by a gear-type pump integral with the engine, oil being supplied from the 250-gallon reservoir in the engine base. Filters are of the full-flow type. The lubricating oil is cooled by a single-pass cooler. Failure of the engine lubricating oil system automatically stops the engine.

An electrically driven transfer pump, located in the engine room, supplies fuel from the supply tank to the injection pumps. The supply pipe to the transfer pump is fitted with a duplex waste-packed filter on the suction side and a felt filter on the discharge side. In the discharge pipe from the transfer pump are a pressure relief valve and a pressure gage.

Engine cooling is accomplished by a gear-driven centrifugal pump, integral with the Diesel engine, which circulates water through the engine, radiators and lubricating oil cooler. A radiator of the panel type is mounted in the roof at the rear end of the engine compartment.

The 72-in. aphonic radiator fan is driven through a right-angle gear box and an eddy-current clutch. The clutch is located between the gear box and the Diesel engine drive-shaft coupling. This clutch provides a damper in the drive system against shocks or torsional vibrations and permits superior modulation of fan speed control. Air is drawn through the radiators and exhausted through a screened opening in the roof.

The thermostat-controlled fan speed and the shutters are so synchronized that when the shutters are closed the fan does not run. When desired, the fan can be stopped entirely, independently of the Diesel engine. Temperature control for the engine is thus reduced to one variable—the temperature of the jacket water. Shutters can be closed manually to protect the cooling system during stand-by periods.

The electric transmission system consists of the main generator, an amplidyne exciter, and four traction motors, one mounted on each of the four driving axles. A gear-driven auxiliary generator is also included to supply power for lighting, battery charging and control circuits. It operates at constant voltage under control of a regulator. A second identical auxiliary generator provides power supply to operate the two motor-driven traction-motor blowers.

The 10-pole main generator, direct-connected to the Diesel engine, is designed to transmit power to the traction motors over the operating speed range of the locomotive. It is constructed with a single low-voltage, separately excited winding for amplidyne excitation. Using a special starting winding and current from the storage batteries, the main generator acts as a motor for starting the Diesel engine.

The four traction motors are G.E.-752 motors.

These are four-pole, d.c., commutating pole motors designed for operation with full or shunted field. Each pair of traction motors is ventilated by a multivane, d.c. motor-driven traction motor blower.

The amplidyne exciter is mounted on the generator and connected into its shunt-field winding. It functions to increase or decrease generator output by increasing or decreasing current supplied to the field. Utilizing exceptionally low current from the control circuit, the amplidyne exciter amplifies this low current to provide a magnitude and speed of generator field control to produce maximum locomotive performance.

The engine control equipment is assembled in a single panel in the engine room in a convenient position for observing engine operation during starting. The contactor compartment forms the rear wall of the cab. Packaged units of equipment are used in the control system to facilitate removal of assemblies for repair and the installation of replacement units. Multi-point connection plugs permit easy connecting and disconnecting of assemblies.

The control stand is located at the left of the engineman's position in the cab. Mounted on it are the master controller, selector and reverser handles; the control power, fuel pump, headlight and train control switches, emergency engine shutdown button, attendant's call button warning lights. The instrument panel, in front of the engineman, mounts the air brake gages, speedometer, load indicator instruments and wheel-slip warning lights. The instrument panel is illuminated by black light. Electrical control equipment as well as switches for motor cut-out control and ground relay cut-out are located in the contactor compartment.

The Control System

The control system is a Type P single-end multiple-unit control. All reversers and line contactors are electro-pneumatically operated while all other contractors function magnetically.

A selector handle on the control stand operates transition, both forward and reverse, manually. There are four traction motor connections: series parallel full field, series parallel shunt field, parallel full field, and parallel shunt field. On auxiliary circuits wherever overload protection is required, manual low-voltage circuit-breaker type switches with reset feature are used.

The G.E. electro-hydraulic power plant regulator automatically governs the engine system. The performance called for by the engineman is furnished within safe limits of engine speed, power and torque.

The regulator includes an engine-driven tachometer generator, a control panel and an engine-mounted servo unit operated by an independent oil pressure system.

Electrical interconnections balance the mechanical action of the servo unit on the engine fuel racks against electrical output of the tachometer generator. This output is proportional to the engine speed.

Movement of the engineman's throttle changes the panel circuits, causing instant servo action on engine fuel supply to achieve the engine speed and power called for. Servo action is automatically limited to a precise schedule for each engine speed to keep the engine torque within safe limits.

Excessive load demand from the generator-traction motor system is relieved by an overtravel feature built into the servo unit. This feature operates through the amplidyne exciter to reduce generator demand whenever the permitted fuel does not maintain the engine speed.

Electrical feedback provisions are included to promote stable operation over a wide speed range and to anticipate transient engine load changes originating in the generator traction motor system.

Overspeed protection is provided by an overspeed trip switch which automatically cuts off the fuel supply when the engine overspeeds. If engine lubricating oil pressure drops to the danger level, a pressure-protective switch drops the engine speed to idle. A ground relay removes power and brings the engine to idle speed in the event of a ground failure in the power circuit. High engine temperature causes a red warning light on the control stand to be illuminated.

Underframe and Superstructure

The underframe is of steel construction, fabricated by electric welding. Truck center plates of cast steel are welded to the rolled steel frame and are equipped with hardened steel liners. Standard Type E top-operated swivel couplers, provided with side uncoupling levers, are housed in cast steel pockets at each end of the locomotive.

The superstructure of the locomotive is of truss-frame steel construction, enclosed with Plymetl paneling. The operating cab floor is elevated above the floor of the engine compartment and is linoleum covered.

The walls and roof are lined and insulated. Two upholstered, cushioned seats are provided with adjustable features. Two fixed-type windows form a high visibility windshield and the operating cab side windows are combination-type, having controlled drop sections and pivoted front sections. All windows are of safety glass.

Each unit has two four-axle, swivel, swing motion, pedestal-type motor trucks. Of cast-steel construction, the truck frames are spring-supported on two equalizers on each side with triple coil springs between the equalizers and the frame. Triple elliptic springs are used between the spring planks and bolsters. The center plates are equipped with safety locks.

Forged open-hearth-steel axles, with 6½ in. roller bearing journals, mount 40-in. rolled-steel wheels. All axles are driving axles with axle-supported motors having spring nose suspension on the truck transom. All wheel and axle assemblies are removable with the motors. Forced ventilation for the traction motors is effected by means of flexible connections between underframe ducts and the motor frames. Hardened spring-steel liners are used on truck pedestal jaws and journal boxes, with high-carbon-steel liners for center-plates. Side bearings are of plain steel with swivel-limiting devices.

The trucks are equipped with clasp brakes on all wheels. There are two brake shoes per wheel, and the braking system is operated by four 10-in. by 8-in., single-acting brake cylinders per truck. A hand brake, connected to the rear truck, is located outside the rear end of the rear hood.

STREAMLINED "TEXAS SPECIALS" CUT TIME TO SOUTHWEST

The new streamlined "Texas Specials" of the St. Louis-San Francisco and Missouri-Kansas-Texas made their first runs in each direction between St. Louis, Mo., and San Antonio, Tex., via Dallas, on May 16. Concurrent with installation of the new equipment, the schedule was cut 4 hr. 5 min. for the through run southbound, and 3 hr. 45 min. northbound. The departure time from St. Louis remains at 5:30 p.m., but arrival at Dallas is at 6:52 a.m., instead of 9:55 a.m., and at San Antonio, 1:30 p.m. instead of 5:35 p.m. Northbound, departure from San Antonio is at 3:30 p.m., 6 hr. 45 min. later than formerly; from Dallas at 10:08 p.m., 5 hr. 53 min. later, with arrival at St. Louis at 11:30 a.m., 3 hr. later. Similar improvements in schedule are provided for Fort Worth passengers.

Cars for the new trains were built by the Pullman-

The buffet-chair-lounge provides snack service and lounge space for coach passengers

The dining cars feature murals of Texas cities served by the "Special"

Standard Car Manufacturing Company. Each train is powered by a two-unit 4,000-hp. Diesel-electric locomotive built by the Electro-Motive Division of the General Motors Corporation. One entire 12-car streamliner is owned by each of the railroads sharing in the operation of the train. The locomotives are pooled and operate through between St. Louis and San Antonio. The consist of the train is as follows:

1	baggage-R.P.O.	St. Louis-San Antonio
1	buffet-chair-lounge	St. Louis-San Antonio
1	56-seat chair car	St. Louis-San Antonio
1	56-seat chair car	St. Louis-Fort Worth
1	36-seat dining car	St. Louis-Springfield
1	36-seat dining car	Denison-San Antonio
1	14-roomette, 4-bedroom	St. Louis-Fort Worth
1	14-roomette, 4-bedroom	New York-San Antonio
1	14-roomette, 4-bedroom	St. Louis-San Antonio
3	14-roomette, 4-bedroom	St. Louis-Dallas
1	1-dwg. rm., 2-bedroom, lounge-observation	St. Louis-San Antonio

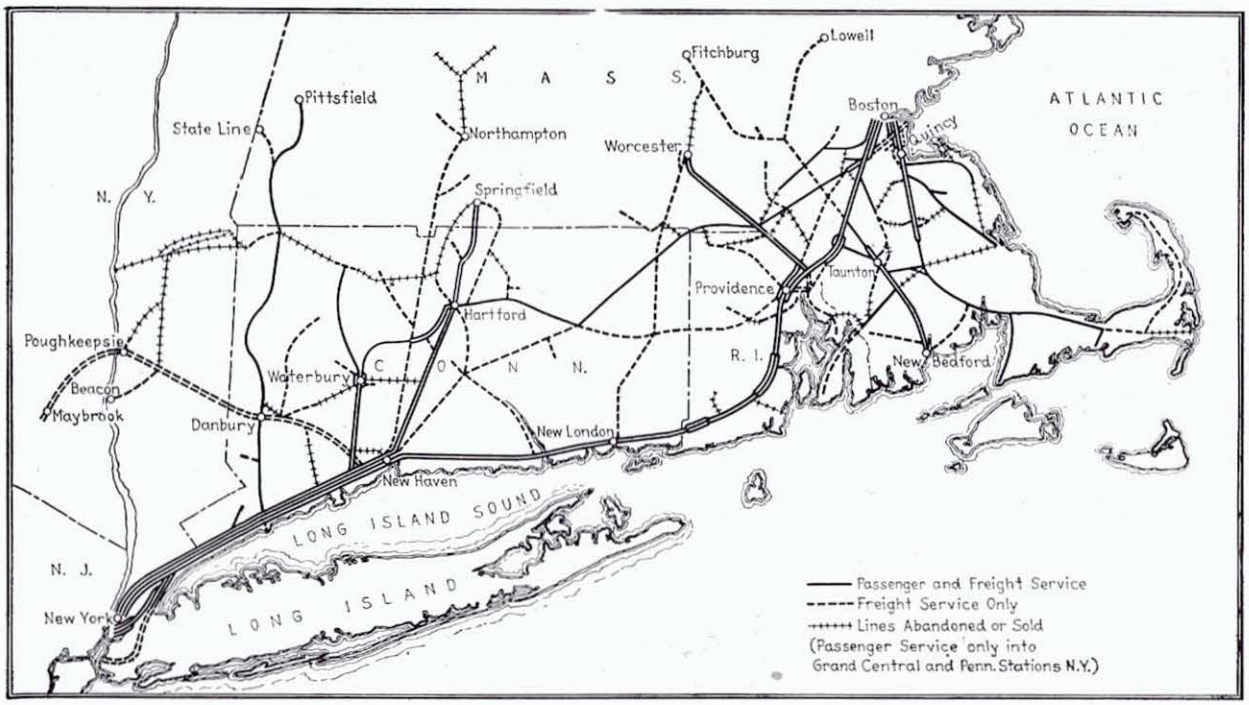
The exterior of the train is sheathed with stainless steel and trimmed in red, presenting a striking appearance and unusual homogeneity. Basic construction of the cars is welded low-alloy steel. Trucks are equipped with roller bearings, shock absorbers, rubber-cushioned center plates, and roll stabilizers. The train is completely equipped with electro-pneumatic brakes with Decelostat control and automatic sanding, Waughmat twin-cushion rubber draft gears, and Tightlock couplers. All passenger-carrying cars have Safety steam-jet air-conditioning with the exception of the dining cars, which receive power for electro-mechanical air-conditioning equipment from self-contained Waukesha engine-generators. Stonefelt and Fiberglas insulation are used in the car structures. The Adams & Westlake "breather" type windows are constructed with an outer pane of heat-resistant glass and an inner pane of safety glass. Car steps, which fold in to conform to the train's streamlined contour, are equipped with individual step lights.

Route of the new streamlined "Texas Special"

The buffet-chair-lounge has 26 "Sleepy Hollow" seats and lounge space for 25 coach passengers. Table space and buffet service is available, and the car is furnished with a radio. The other coaches are partitioned, seating 40 in one section and 16 in the other.

Sleeping cars are of the 14-roomette 4-bedroom design. The observation-lounge contains two bedrooms and a drawing room, in addition to 21 lounge seats and a buffet serving light lunches and refreshments.

The locomotive shows "Texas Special" on the nose and letterboards. The heralds of both the Katy and Frisco are also shown



The 1,838 route-miles of the New Haven railroad give intensive coverage to southern New England. Each line on the map represents one track. The road is electrified between New York and New Haven and between the main line and Danbury. Cross-hatched lines show routes abandoned or sold since 1920

THE NEW HAVEN STORY—SURVIVAL BY ADAPTATION

Management succeeds in reorienting property to wholly changed conditions; territory unusual laboratory of difficult conditions for operating railroads

Survival by adaptation has long been held the key to biological changes. If this law is valid for animals and men, it is germane also to the study of the rise and fall of corporations. Biological study is best pursued by observing exaggerated characteristics. By analogy, railroad adaptation to the increased severity of competition ought to be manifest to the most noteworthy degree where adverse external forces have been the most pervasive.

It would be difficult to find a major railroad more transformed to meet special and general problems in doing business than the recently reorganized New York, New Haven & Hartford. It is conceded by students of transportation that New England has not been an easy place in which to run a railroad since that industry became one which profits most from mass and distance. Even before the rise of motor competition and increase in water rivalry, the New Haven fought against serious natural handicaps in its drive for efficiency. Then, when the competition which came to all railroads hit the New Haven, it did so in magnified degree. In short, compared with most other railroads in the country, the New Haven entered the ring bound hand and foot, facing an opponent with loaded gloves.

A study of the accomplishments of the New Haven in the recent past must, then, take account of the fact that its management has had to deal with both natural handicaps and carrier competition in *exaggerated* form. Someone has said that no other Class I railroad is so vulnerable to high cost or to competition. The road suffered net deficits in 1922 and 1923, in each of the depression years 1932-1939, in 1940 as well, and returned to a deficit status in 1946 and 1947. Even in net railway operating income the company hovered close to the minus sign in 1938 and 1946.

The ills of the New Haven, contrary to opinion in some quarters, have not been, and are not now, due to overcapitalization. Commissioner J. B. Eastman, in his dissenting opinion in the first New England

In 1947 about 44 per cent of the road's gross revenues and 48 per cent of its operating expenses related to passenger service.

Divisions case of 1922 (62 I.C.C. 572) wrote: "Although the New England lines operate in thickly settled country, where millions have been spent on second, third and fourth track, the abolition of grade crossings, costly station and terminal facilities, and electrification, their railroad property investment per mile of road is relatively low." He pointed out that the intensively built New Haven had a per-mile investment of $188,857 in 1919, compared with $148,631 for non-New England carriers in the Eastern group. The valuation of the New Haven in 1922 by the Interstate Commerce Commission was more than $70 million in excess of the indicated railroad investment in road and equipment and physical property, including cash, materials and supplies.

This conservative capitalization the reorganization of the road has further reduced. The road came out of trusteeship on September 18, 1947, with its capital structure cut from $489 million to $385 million. In addition to this reduction, the trustees, during their 12-year control of the road, paid off in cash debt in the amount of $38 million, and, since the consummation of its reorganization, the company has retired more than $6 million of new debt, excluding equipment trusts in both instances. Finally, during trusteeship, more than $40 million was written out of investment in carrier property as a result of abandonment of lines and structures.

The plan of reorganization promulgated by the I.C.C. is considered "drastic" by the road's management. Over $206 million of preferred and common stock was wiped out, over the protests of the company. Secured first mortgage bondholders received about 70 per cent of their secured claims in contingent income bonds and preferred stock, and only about 30 per cent in new fixed interest obligations.

Nature of Territory

The New Haven operates 1,838 route-miles of road in the three states comprising southern New England—Massachusetts, Rhode Island and Connecticut, together with its main line connection into New York City, and a freight bridge line across the Hudson river to Maybrook, N. Y. It is the only railroad in Rhode Island and has only one railroad competitor in Connecticut—the Central Vermont. The road's territory holds about 10 per cent of the total population of the United States, although it comprises less than 1 per cent of the land area. Within it there are 11 cities each with a population in excess of 100,000 and 8 cities with a population between 50,000 and 100,000. The greatest railroad distance between any two of the large cities in the area is that between New York and Boston—229 miles.

Although the *relative* importance of New England in manufacturing activity and income production has declined during the past 25 years, it remains an important and highly concentrated center of industrial and trade activity, in which 15,568 manufacturing plants engage in more than 220 distinct lines of production. The area produces, for example, 72 per cent of the firearms made in the country, 72 per cent of the rubber boots and shoes, 69 per cent of the worsted

goods, 58 per cent of the woolen fabrics and 62 per cent of the textile machinery.

Although rich and active, an area of this character is not a kindly climate in which to pursue the railroad business. Southern New England produces almost nothing of the traffic which is the mainstay of rail carriers—coal, lumber, cement, brick, bulk grains, ores or steel and steel products. The distances between markets and producing areas are unusually short, making both for inherently complicated railroad operations and intense highway competition.

In his statement to the I.C.C. last year in Ex Parte 166 proceedings, President Howard S. Palmer observed: "The New Haven is one extensive terminal, with traffic spreading out all over the rail lines, with few well-defined main lines and a very high proportion of secondary routes and branches. As related to the miles of road, the number of stations, yards and junction points is high. The short haul; the large amount of dropping and pick-up of cars; the large amount of classifying in yards; the large number of cars at initial and final terminals (involving nearly 5,000 private sidings, bulk tracks and freight stations) being loaded and unloaded; the low ton-mile productivity of equipment and labor, combine to result in higher operating costs and higher investment in plant, equipment and facilities per unit of traffic handled than characterizes more fortunately situated railroads."

In New Haven territory there are no mines, saw mills, or large steel mills which perform their own switching, or ports of reforwarding or export or grain elevators which produce or receive large tonnages of freight that can be handled in through blocks. The New Haven must perform a service which is distinctly *distributive* in character, using facilities which are generally more expensive per unit of traffic handled. It must use a disproportionate amount of locomotive- and man-power.

How New Haven Stacks Up

Comparison of significant averages of New Haven operations with those of Class I roads as a whole highlights the handicaps which the former must meet:

Average	*Class I Roads*	*New Haven*
Miles per ton—revenue	226	149
Revenue tons per train	1,077	980
Total cars per freight train	53	54
Average journey per passenger—miles	65	42

A further disability of the New Haven is lack of overhead traffic, a type of business which minimizes terminal costs and magnifies road handling efficiency. Indeed, the proportion of overhead to local originated and/or terminated tonnage influences unit costs even more than average length of haul. Prior to 1927 separate statistics were maintained for the Central New England portion of the New Haven system, extending from Danbury and Hartford to Maybrook. A study of 1923 traffic showed that, while the average haul of the C.N.E. was only 69.6 mi., its net cost was 11.08 mills per ton-mile, compared with a much higher cost of 21.36 mills for the parent New Haven possessing a longer average haul of 105.4 mi.

The management of the road, by intensive sales activity, has succeeded in increasing overhead tonnage from about 5 per cent of the total in the early twenties to 11 per cent in 1946, but further progress in this direction is distinctly limited by the fact that there is nothing to the east or south of the New Haven but water and only the limited area of upper New England to the north, served by railroads having their own outlets to the west and south.

Less-carload traffic accounts for about 20 per cent of total freight revenues, compared with 9 per cent on all Class I roads. In 1947 merchandise cars represented more than 27 per cent of total revenue cars handled. Traffic of this type is unprofitable generally, especially when, as in New England, the truckers and forwarders are able to drain off most of the "good stuff." The cost of handling it is inflated by higher terminal costs to a much greater extent than carload business.

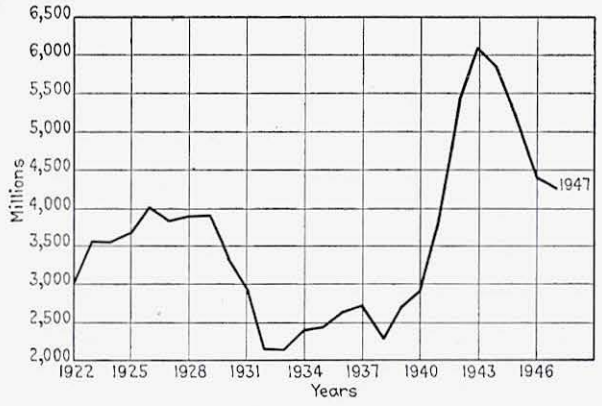
Importance of Passenger Traffic

In 1947 about 44 per cent of the New Haven's gross revenues and 48 per cent of operating expenses, taxes, joint facility and equipment rents were attributable to passenger service operations. This dependence upon passenger revenues is probably greater than that of any other road-haul steam railroad with the exception of the suburban Long Island. Approximately two-thirds of the total train-miles on the New Haven are in passenger service. In 1943-45, net railway operating income from passenger service exceeded that from freight. Big as it is, the road's passenger business is costly to handle and extremely sensitive to wage and fuel price increases. In 1947 about half of total passengers carried were low-fare commuters. As shown, the average distance travelled by passengers of all classes in 1947 was 42 mi., compared with 65 mi. for all roads. Commuters on the New Haven rode an average of 21 mi. and paid 22.8 cents per journey and 1.08 cents a mile. The average journey of non-commutation passengers was 62 mi. with an average revenue of $1.61, or 2.594 cents a mile.

For every two loaded cars received the New Haven originates but one and must return the remainder empty. The road acts as a terminal network and must, perforce, have cars on hand longer than average length of haul would indicate. Hence the road is burdened with heavy per diem charges. Since car service rules forbid the road sending out its own empty when, as always, it has foreign empties to return, there are usually more foreign empties on the New Haven than New Haven cars on outside lines, except when the car shortage is so acute that empties are moved out on emergency orders. In the latter case the New Haven must incur the expense of large empty movement. In times of car surplus, home equipment cannot earn money because traffic flows into the area in foreign cars exclusively, on which per diem must be paid, notwithstanding the fact that the New Haven's own rolling stock may lie idle on home rails.

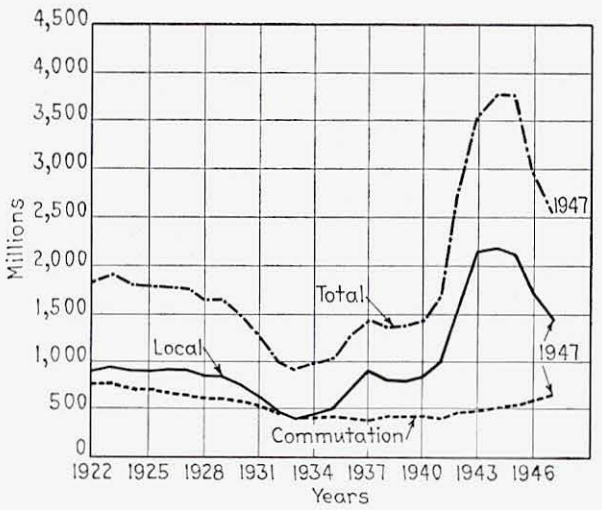
Because of this situation, the New Haven was severely censured during the Storrow investigation of 1925 for owning too many cars, from which it got little use and no rental. It has since reduced its ownership drastically, and now incurs the wrath of western congressmen because allegedly it owns too few. When per diem charges were first introduced in lieu of

Fig. 1



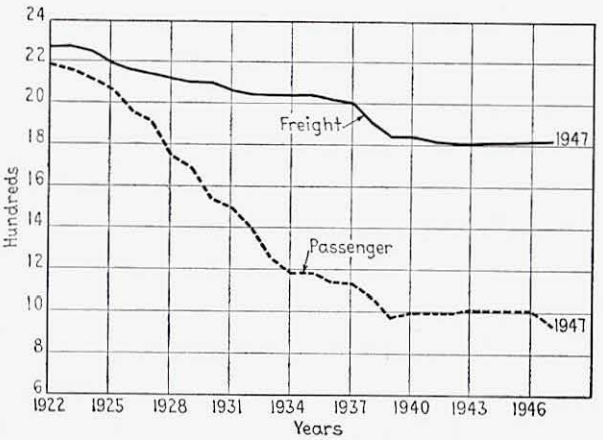
Trend of the New Haven's revenue ton-miles for the past quarter century

Fig. 2



Revenue passenger-miles on the New Haven, 1922-1947

Fig. 3



Average miles of road operated (first track)

Table I—How the New Haven Pruned Its Plant

	1922	1947	Per Cent Decrease
Miles of road operated	2,298	1,840	19.9
Miles operated in passenger service	2,177	934	57.1
Number locomotives owned	1,332	672	49.5
Aggregate tractive force (1,000 lb.)	42,999	33,272	22.6
Average tractive force (lb.)	32,281	49,513	53.4 (inc.)
Freight cars owned	36,108	7,169	80.1
Aggregate capacity (1,000 tons)	1,222	392	67.9
Average capacity (tons)	34.3	56.8	65.6 (inc.)
Passenger-train cars owned	2,551	1,497	41.3

mileage payments in 1902, the initial charge of 20 cents a day was based on an average of 33 1/3 mi. a day. Since the New England lines were then averaging only 15 mi., they were affected adversely by per diem from the beginning. The New Haven met the situation at first by a liberal purchase of equipment. It was from 1910 to 1914 a creditor and was from 1915 on a debtor road with respect to rentals. But even heavy ownership could not overcome the growing handicap it faced in terminating more cars than it originated, and it has been a debit line ever since.

Great Improvement Despite Handicaps

Despite these disabilities, the New Haven management has achieved much in improving overall efficiency, adapting its plant to new conditions and fighting for a fair "wage" for rendering service. At the same time, it has fought and won traffic of the more desirable type by carefully calculated improvements in service, studies of competition and markets and intensive sales techniques.

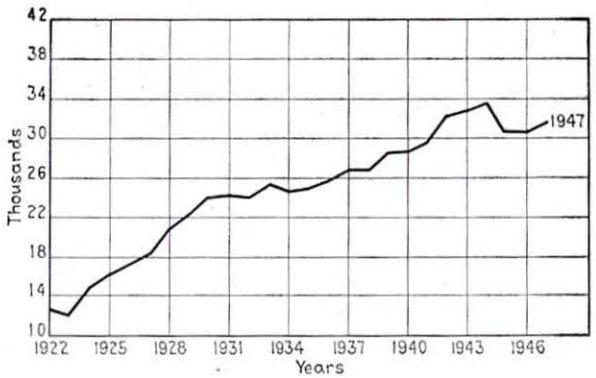
The year 1922 has been chosen as a base for primary statistical comparision because it gives a quarter-century review and because it marked the beginning of important competition from buses, trucks and private automobiles. Table I lists in adjacent columns the significant changes in plant which were effected between 1922 and 1947. They show a drastic pruning of facilities made superfluous either by greater utilization or abandonment by the public of former services.

Traffic trends are graphically depicted in Figures I and II. Trends of revenue ton-miles and passenger-miles parallel those of Class I roads generally, except that New Haven ton-miles showed less rise in the war peak. The important fact is that a much smaller

Table II—Indices of Improvement in Operating Efficiency

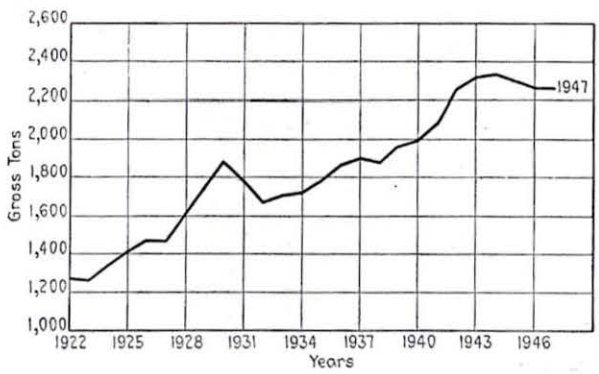
	1922	1947	Per cent Change
A Bigger Load			
Revenue ton-miles (millions)	3,020	4,244	+ 40.5
Revenue passenger-miles (millions)	1,858	2,545	+ 37.0
Longer Faster Trains			
Gross ton-miles per freight train hour	12,670	31,621	+149.6
Net ton-miles per train hour	5,373	14,007	+160.7
Revenue tons per train	502	960	+ 91.2
Revenue passengers per train	139	249	+ 79.1
Cars per freight train	36	54	+ 50.0
Increased Utilization			
Cars on line daily	46,340	20,558	— 55.6
Miles per car per day	13	32	+146.2

Fig. 4



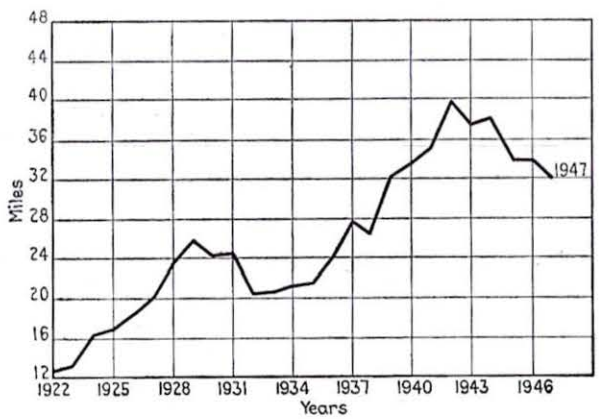
Gross ton-miles per freight train hour—a significant operating index—increased 161 per cent on the New Haven in 25 years

Fig. 5



Average train load on the New Haven almost doubled in a period of heavy competition

Fig. 6



Despite its terminal character, the New Haven vastly improved car movement

physical plant, both fixed and rolling, supported a much higher traffic in 1947 than in 1922.

The reason is set forth in Tables II and III. The former exhibits the remarkable improvements in operating efficiency which the road achieved. Attention is called particularly to "gross ton-miles per freight train hour", the best composite measurement because it reflects load and speed. In this regard, the New Haven's improvement of 161 per cent in 25 years compares favorably with the 138 per cent increase achieved by all roads. Figures IV—VI indicate progressive trends in three important indices.

The averages in Table III reflect pricipally the changed character of traffic. The 20 per cent reduction in miles of road operated resulted principally from the junking of light traffic branches and secondary routes, which the public itself deserted. The even more drastic cut of 57 per cent in mileage accorded passenger service compares with 28 per cent for the country as a whole. In view of the populous character of the New Haven's territory, such curtailment of poorly patronized services is indicative of forthright courage, intelligent study of costs and prospects and effective presentation thereof to regulatory bodies. The trend of track and services abandonments is shown in Figure III.

Section 77 of the Federal Bankruptcy Act provides that trustees of railroads shall determine what lines or portions thereof should be abandoned or sold during pendency of reorganization proceedings in the interest of the debtor's estate. As soon as they took over the road on October 25, 1935, the New Haven trustees undertook a serious study of light-traffic lines and alternate routes with a view to curtailment of service or outright abandonment. From the end of 1935 to 1947, total road-miles operated by the New Haven were reduced 13 per cent. Through 1946, the trustees effected the abandonment of 329 mi. of road, 190 mi. of other track (mostly second track), 504 mi. of sidings and yard tracks and more than 2,400 structures. By this means about $40 million was written out of investment in carrier property. As has been stated by President Palmer (who was one of the three trustees): "As a result, the amount on which return is computed represents the very minimum of book investment in plant and facilities necessary to provide efficient transportation service."

In addition to these abandonments, the New Haven, during trusteeship, discontinued all operations of its once far-flung New England Steamship Company except essential service to the islands of Martha's Vineyard and Nantucket. In 1937, after 90 years continuous operation, the world-famous Fall River Line

Table III—Results of Changes in Character of Service

	1922	*1947*	*Per Cent Change*
Revenue freight train-miles (thousands)	6,796	4,346	—36.1
Revenue passenger train-miles (thousands)	15,256	10,661	—30.1
Average haul per ton	121.4	149.0	+22.7
Revenue per ton-mile (cents)	2.2	2.0	— 9.1
Average journey per passenger (miles)	21.5	41.6	+93.5
Revenue per passenger (cents)	57.3	92.0	+60.6
Revenue per passenger-mile (cents)	2.7	2.2	—18.5

From South Station, Boston (before World War I reputedly the busiest station in the country) run the Old Colony passenger trains on which the New Haven loses $3.6 million a year. This drain on revenues will soon cease

of boat-rail service between New York and Boston was ended because of mounting deficits. In that year the road sold off 14 vessels. In the same year, the subsidiary suburban electric road, the New York, Westchester & Boston, discontinued operation, because its future was clearly hopeless and it paralleled the New Haven main line much of its mileage. Such of the New Haven's subsidiary trolley companies as could not be made to pay were sloughed off, while the remainder were gradually motorized and now contribute to the railroad's income.

In 1920 it was possible to reach practically every town and hamlet in southern New England by frequent train service. Almost every town of size was a transfer point for a bewildering array of connecting trains. There were at least three rail passenger routes between New York and Boston lying wholly on the New Haven and fourth—the first all-rail route between the cities—via Springfield and the Boston & Albany.

Motor competition made much of this network of lines wholly unprofitable for passenger service, and much of the latter was abolished, as has been shown. Study is being given to further cuts. About 85 per cent of the railroad's passenger revenue is earned by service on the Shore Line between Boston and New York and the line from New Haven to Springfield, and the company has concluded that practically all net passenger earnings must come from service on these lines. New York is the origin or destination point for passengers producing 82 per cent of passenger revenues and Boston passengers (excluding Boston-New York) produce an additional 12 per cent.

Passenger revenues held up somewhat better on the New Haven before World War II than on most roads, due in part to greater highway congestion and frequent railroad service. Nevertheless the road waged a relentless battle against losing trains on the branches and secondary lines, with the result that train-miles were progressively reduced from 1920 to 1947, being about half in 1933, and 70 per cent in 1947, what they were in 1920.

Riddance of the "lemons" increased the mass transportation aspect of the road's operations, as is here evident:

	1920	1947
Cars per train	6.0	8.7
Passengers per car	31.4	37.0
Passengers per train	150.5	249.4
Passenger-miles per mile of road	981,498	2,724,851
Passenger train miles per mile of road	6,915	11,415
Passenger revenue per passenger	$0.49	$0.92

It will be noted that the revenues figured here are affected by the low average fare of commuters, the total number of which has increased lately.

The change in motive power in the same period has been as pronounced as the decrease in train-miles, as the comparision of passenger train-miles hauled by the respective types of power shows:

	Steam	Electric	Diesel	Motor*	Total
1920	11,663,045	2,271,410	———	1,321,062	15,255,517
1947	3,185,401	3,196,101	2,938,567	1,341,314	10,661,383

*Includes multiple-unit electric cars, gas-rail cars, and "Comet."

Because so great a proportion of its total revenues comes from passenger service, the road benefits from freight-rate increases to only a limited degree—a 17 per cent boost gives it only 9 per cent lift in gross—and, in times of rising costs, the New Haven must seek added compensation for the carriage of passengers, within the limits imposed by competitive factors. Since the end of the war the road has twice acted independently and in advance of other roads in its region in initiating action for increased passenger fares on its lines with signal success.

The Old Colony Situation

The eyes of every road blessed with suburban business have been on the New Haven for its forthright action in seeking to eliminate the burden of passenger service on the Old Colony lines out of South Station, Boston. Objections of New Haven security holders to the inclusion of the Old Colony in the new company unless its losses were eliminated, and opposition to this stand by the state and dissenting securityholders of the O.C., were responsible primarily for the long delay in consummating the New Haven's own plan of reorganization.

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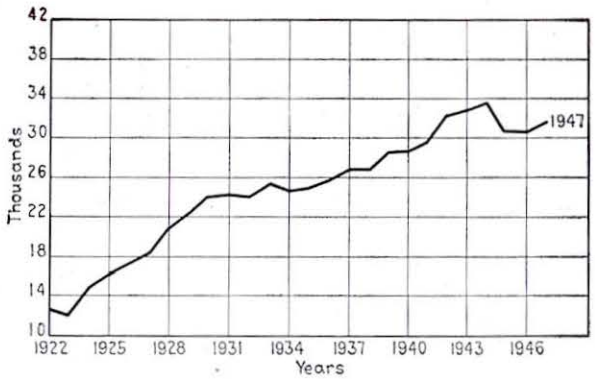

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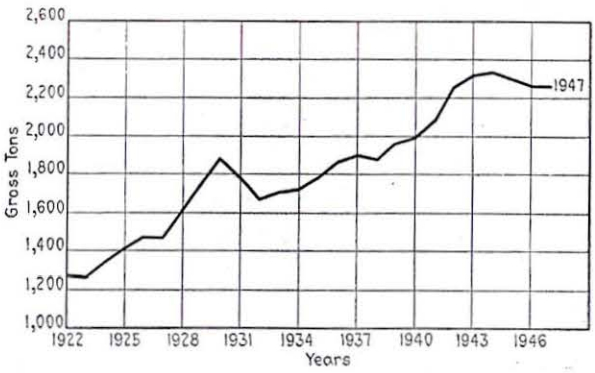

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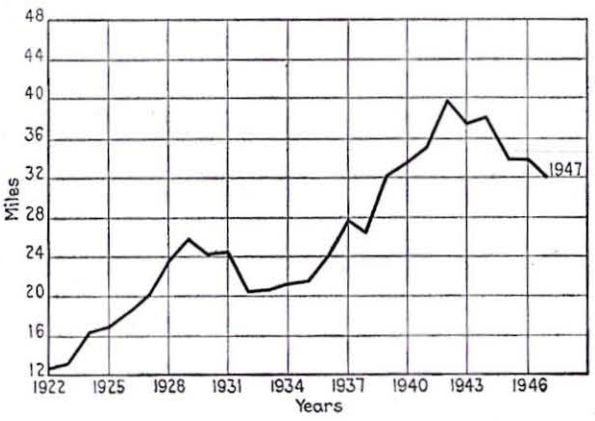

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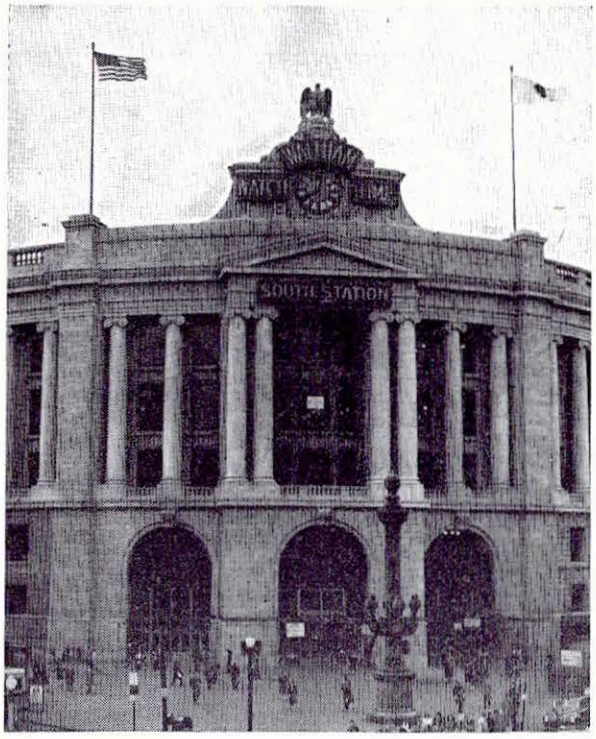

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elected to discontinue, on October 1, 1948, *all* passenger service on the Old Colony lines. The road would be willing, if requested, to continue essential longer-haul service between Boston, Taunton and New Bedford via Mansfield; summer service between Boston and Cape Cod via Mansfield; summer service between New York and the Cape via Attleboro; and winter service of at least two round trips daily between Hyannis and Taunton, without waiver of right to discontinue these "emergency services" at any subsequent date.

Five days later Governor Bradford addressed the joint session of the state legislature in part: "The first reaction to a decision by a private corporation depriving 75 cities and towns of passenger railroad service is one of shocked disbelief. But these are the facts, unpleasant as they may be. The railroad management is wholly within its legal rights. . . . The final judicial comment on the matter is in these words of the Circuit Court of Appeals for the Second Circuit, 'The general public interest of keeping an interstate railroad running must override the local public interest of Massachusetts'. The United States Supreme Court has declined to review that decision. . . . The formula by which the loss figures are arrived at has been established by the I.C.C. and cannot be successfully challenged at the present time."

Subsequently, to give the commonwealth time in which to effect substitute service by extension of the Boston rapid transit system over O.C. trackage or by bus, the New Haven has postponed the effective date of abandonment of suburban service on the O.C. to March 1, 1949, although its annual losses from the service are running close to $3.6 million a year.

Few suburban services pay their way. The Old Colony service is further affected, however, by the fact that the traffic is diffused along a number of branches—contrasted with the single main line commuting service of the New Haven out of New York. The traffic has declined steadily except during the war years; and the average haul is extremely short. Passengers in and out of Boston via the Old Colony lines declined from 16 million in 1920 to 8 million in 1947. With half the passengers riding between 5 and 10 miles, terminal costs have pushed deficits out of sight, which a cut in week-day trains operated in and out of Boston from 223 in 1920 to 89 in 1947 has not been able to overcome.

Capital Expenditures

During the 12 years' reorganization period, the trustees of the New Haven purchased new equipment and effected fixed improvements at a total cost of $121,242,000. From January 1, 1938, to March 31, 1948, the road expended a total of almost $30 million in additions and improvements to existing roadway and structures, classified as follows:

Improved and additional track	$ 6,739,511
Station and roadway buildings	7,748,719
Signals and communication	4,240,111
Bridges and crossings	3,081,557
Shops and shop machinery	3,536,102
Power plants and transmission	3,379,226
All other improvements	1,185,141
Total	$29,910,367

During the same ten-year period the road spent almost $66 million for new equipment and betterments thereof, represented by the following classes:

Steam locomotives	$ 798,143
Electric locomotives	5,435,329
Diesel locomotives	26,645,429
Freight train cars	18,667,675
Passenger train cars	11,966,974
Floating and work equipment	1,564,295
Automotive equipment	719,723
Total	$65,797,568

The principal units of revenue equipment covered by this expenditure are:

6	Electric passenger road locos.	10	Grill cars
10	Electric freight road locos.	97	Pullman parlor cars (second-hand)
105	Diesel-Electric road locos.		
128	Diesel-electric switch locos.	4,932	Freight cars
29	Lighters (second-hand)	144	Caboose cars
148	Passenger coaches —streamlined	150	Troop sleepers

On order but not delivered as of March 31, 1948, were 82 modern stream-lined passenger cars, 27 sleeping cars, 1,441 steel box cars, 56 cabooses and 6 Diesel-electric switching locomotives. In addition, there are now on order fifteen 2,000-hp. Diesel road passenger-freight locomotives, seven 1,500 hp. and two 1,000 hp. Diesel road switchers, passenger and freight, and twelve 660 hp. Diesel switchers. Since it placed in service its first Diesel-electric switcher in 1931, the New Haven has continued a progressive policy of Dieselization of power, except on its electrified lines between New York and New Haven. It now owns 250 Deisel units and has, in addition, orders placed for $5.4 million worth of Diesel power.

[An early issue of *Railway Age* will include an article on Diesel power on the New Haven. There also is tentatively scheduled within a few weeks an article reviewing the road's traffic policies and results.—EDITOR]

Communication

First Locomotive West of Chicago

ST. LOUIS, MO.

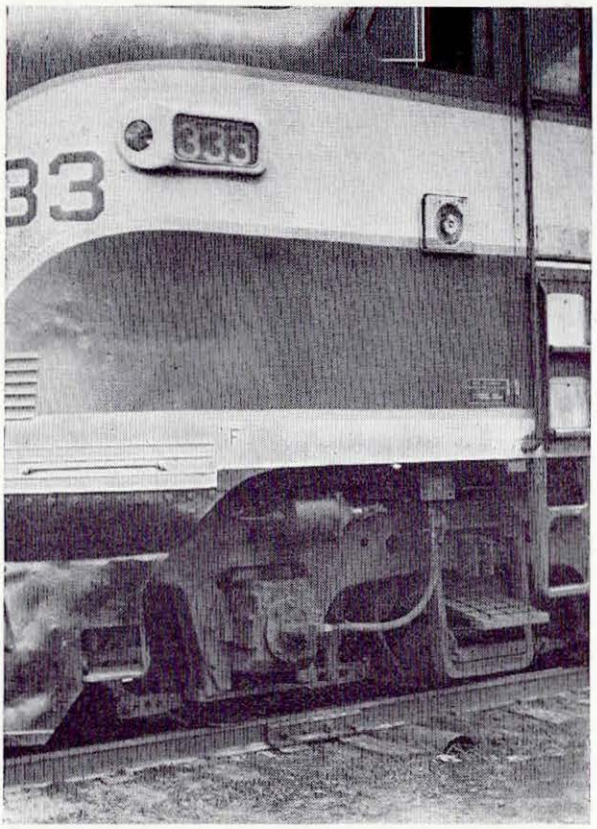
TO THE EDITOR:

The feature article on the Railroad Fair in Chicago in *Railway Age* of May 1 refers to the Galena & Chicago Union's "Pioneer" as the first locomotive to run west *"of"* Chicago. May I suggest that the word *"from"* be substituted for the word *"of"*.

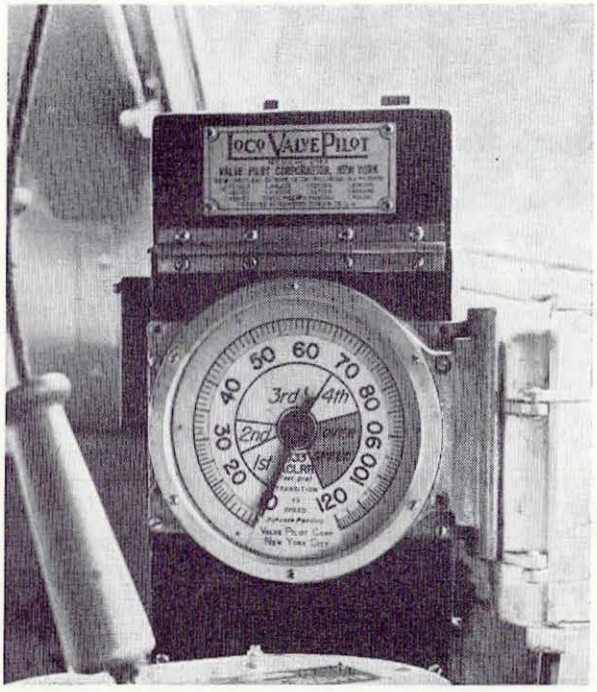
I make this suggestion because, while there is no question at all that the "Pioneer" of the Galena & Chicago Union (later the C. & N. W.) made the first run of a steam locomotive westward *from* Chicago one hundred years ago, I feel it is not quite correct as it reads, especially the words "and so opened the first chapter of the great epoch of western railroading."

On November 8th, 1838, ten years earlier than the "Pioneer" started westward *from* Chicago, the steam locomotive "Rogers" started eastward from Meredosia, Ill., (on the Illinois river), heading toward Jacksonville and Springfield, Ill., on the Northern Cross (now a part of the Wabash).

TOM M. HAYES
Passenger traffic manager, Wabash



The recorder drive is shown connected to the left front axle. The wheel-diameter compensator gear box is bolted to a bracket located under the side sill at the right of the brake cylinder



Transition points are marked on the recorder dial on locomotive No. 333

DEVELOPMENT OF DIESEL

By J. D. LOFTIS
Chief of Motive Power and Equipment
Atlantic Coast Line

Operating one of the largest fleets of Diesel-electric locomotives in the United States, the Atlantic Coast Line has been constantly striving to get the maximum service from its Diesel motive power. Like those of any machine, maintenance costs of Diesels increase with age and it becomes necessary to investigate every possibility of preventing trouble before it occurs if the locomotives are to be kept out of the shops and available for hauling revenue trains.

Improved maintenance methods and routine checks by shop forces have reduced failures, but further savings could be effected by improving operating techniques while on the line of road. It has been apparent since the delivery of the first Diesel-electric locomotive that precise locomotive handling on the part of the engineman is necessary to prevent damage to both electrical and mechanical equipment. The overheating of traction motors for a short time due to overloads may show no immediate damage, but constant overheating of such equipment through poor or careless operating techniques materially shortens traction-motor life.

Much time and effort have been devoted to the instruction of crews in the "whys and wherefores" of correct operation, but it is impossible to provide a road foreman or electrical supervisor to make every trip with every engineman. Speed recorders have been used on all road Diesel-electric locomotives since delivery and have played a valuable part in assuring proper operation, but speed in itself, within limits, is not harmful to the component parts of a locomotive if the throttle and transition lever manipulations are coordinated with speed and load conditions. The A.C.L. road passenger locomotives have an automatic transition device, but on road freight locomotives the transition changes are completed manually as a responsibility of the engineman.

It was felt by the chief of motive power and equipment that some sort of recorder should be provided for Diesels to (1) determine whether or not the operating methods materially contribute to traction-motor failures and to high maintenance costs; (2) determine if the road crews were handling Diesel-electric motive power in a manner to produce the best operating results, and (3) determine conditions of operation that could possibly cause electrical or mechanical failures. Accordingly, negotiations were conducted between the chief of motive power and equipment of the A.C.L. and the Valve Pilot Corporation which resulted in an agreement to develop and test a recorder of this type. During the tests the railroad would render full cooperation in the development work and assist in making an analysis of the data obtained. After considering

OPERATION RECORDER ON THE ATLANTIC COAST LINE

Valve Pilot guides operators in handling Diesel-electric locomotives and produces records that aid in raising the performance standards of both enginemen and locomotives

electrical, hydraulic, pneumatic and mechanical methods of producing the desired record it was decided that a mechanical linkage would provide the most accurate, trouble-free results.

A decision was also made that a record of the throttle position and reverse lever correlated to speed for passenger locomotives having automatic transition, and a record of the transition position correlated to speed for freight locomotives having manual transition, would provide a suitable record and would accomplish the control desired. To obtain this record from the passenger locomotive with automatic transition, a sprocket and cable connection was made directly to the throttle shaft and the reverse handle of the control stand in such a manner that every movement of each handle would be recorded on the tape in relation to the speed line. The throttle record showed eight equal steps above the center line of the tape for forward movements and below the center line for reverse movements.

An Electro-Motive 2,000-hp. passenger locomotive, A.C.L. No. 532, with automatic transition, was assigned to this test. The test equipment was applied and the locomotive was returned to service. The test has now been in operation for over six months with very little supervision except to remove and analyze the tape after each run. It is found that the recorded speed with the recorded throttle and reverse lever movements provide an excellent and inexpensive method of supervision as an aid to road foremen of engines and other supervisory officers.

The resultant tape records accurately indicated whether or not throttle reductions were made for railroad crossings in accordance with instructions to prevent damage to traction-motor commutators and brushes, and also whether or not the throttle was reduced for transition changes. Slipping of wheels was also recorded on some of the runs which permitted corrective action to be taken. In a few instances when the schedule was not maintained it was found that the operator had done everything possible to maintain the schedule but was unable to reach the maximum operating speed, which indicated either too much tonnage for the locomotive or that the engines were not developing their full rated power. Conversely, in those where the locomotive was found to be operated with reduced or drifting throttle for a considerable portion of the run, it could be determined that more

Freight locomotive used in development of Diesel recorder

tonnage could be handled or that less horsepower could be furnished for the run.

The railroad also assigned locomotive No. 333, an Electro-Motive freight-type of 2,700 hp., A and B units with manual transition, for another test. A speed recorder was applied to this locomotive and was mechanically connected to the transition shaft in such a manner as to record the transition position in relation to speed and to make the transition record on the tape at the miles per hour appropriate to the first, second, third and fourth transition, respectively.

Freight Locomotive Tests

After the test of locomotive No. 333 had been in effect for some time and after several test runs in freight service on the main line, the tape records were collected and studied carefully. From these it appeared that while the record of transition was new and useful of itself, to enjoy full advantage of the recording equipment on locomotives with manual transition a record of the throttle and reverse lever similar to the one produced on locomotive No. 532 should be produced on locomotive No. 333 in addition to the transition record.

This change resulted in considerable delay in the test because is necessitated the addition of another pencil. To add another recording pencil with its moving attachments involved major changes in the speed recorder itself.

After the difficulties of engineering and design were successfully overcome the instrument which had been on No. 333 since November, 1947, was replaced by a new instrument which made a complete record of speed, throttle, reverse lever and transition. This information was necessary for accurate and detailed analysis of the operation which had been heretofore unavailable and which correlated the throttle, reverse lever and transition positions with the speed record. After this new equipment was installed the test was continued.

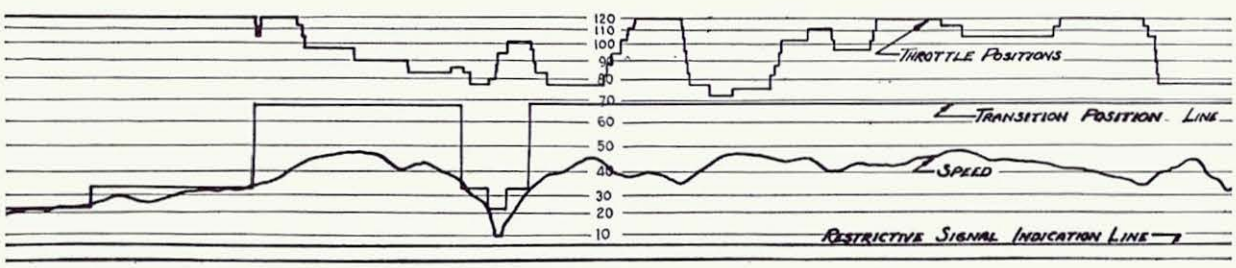
With these data available, when the speed line crosses the transition line with the throttle on the eighth notch, an overload or late transition, dependent on whether the speed was increasing or decreasing, would be readily apparent. As a protection to the traction motors an overspeed switch set for 83 m.p.h., the maximum permissible speed on this particular locomotive, was installed in the instrument.

After several weeks of operation, the tapes were again collected and studied and the plain dial on the instrument was changed for one marked with transition points at the speeds at which the transition should be made in accordance with the builder's emergency instructions. Several hundred readings were made comparing the transition points on the speed dial with the indication on the transition meter. It was found the indications were identical and, due to the inherent accuracy and reliability of the mechanical speed recorder, transitions could be made accurately using the speed as a guide. This is important, as a sluggish or inaccurate speed indication would cause transitions to be made well outside of the safe current limits of the traction motors and would only increase the difficulties which the railroad was seeking to cure.

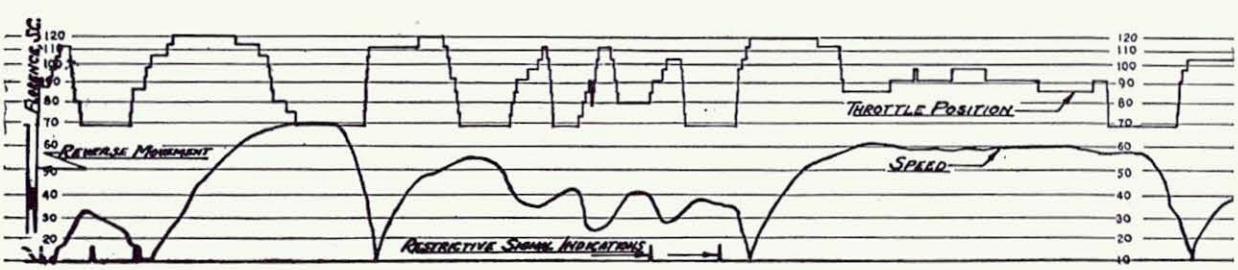
It was found after about 75,000 miles experience that the error was less than two miles per hour and was caused by locomotive wheel wear. This wear was then compensated for by a minor gear change in the drive mechanism for which provision had been made.

Marked Dial Helpful

The dial marked with the transition points met with immediate favor among the operators, the consensus being that transition changes in accordance with miles per hour was an indication which was understood and which made sense to them. In addi-



Reproduction of actual tape from freight locomotive No. 333 having manual transition



Reproduction of actual tape from passenger locomotive No. 532 having automatic transition

tion, while accelerating and operating, it is necessary frequently to consult the speed indicator. The transition position as marked on the dial was always apparent and noticeable, making it easy to observe the changing of transition while attending to road conditions.

No instructions were issued to the enginemen in the use of the marked dial but the second group of tapes from the instrument, made while the marked dial was in use, produced many records which indicated improved operation. When later it became desirable in the conduct of the test to return to the unmarked dial temporarily, every operator who had used the marked dial complained about not having it and the overrunning of transition points increased noticeably.

The first group of tapes from the instrument, made while the unmarked dial was used, showed many careless transition changes and, in a few cases, serious overloads due to decreasing the speed with a full throttle below the point at which a reverse transition should have been made. Frequent instances of a late forward transition were noticed, particularly while accelerating out of a big yard. When the road foreman checked with the operators involved, it was found they had misunderstood the original instructions and were not aware of the damage which might result to the electrical equipment by sub-standard operation.

The locomotive was assigned for a time on a division where Diesels seldom had been used before. The difference between the trained operators and the inexperienced operators was immediately apparent from the records. Wheel slips were frequently recorded on this tape. The obvious increase led to further investigations to determine the cause. It was found during the period of these runs that it had rained constantly, the profile was steeper than on any other division, tonnage of trains was at the maximum for this locomotive and 80-lb. rail was standard on that part of the road. Any one of these factors of itself could have caused slipping but the combination produced an excessive number of slips.

Since Diesel road locomotives are in pool service on the A.C.L., and a portion of the main line is equipped with automatic train control, an additional feature was incorporated to register any restrictive signal indications that may have been encountered on runs within train-control territory.

At present the two units originally developed are still under test, but the Atlantic Coast Line is confident of the value of such a recording device and all future Diesel-electric road locomotives will be equipped with this or a similar type of recorder.

Conclusions

1. The Diesel operation recorder supplies to the supervisory officers a mile-by-mile report of the handling of the Diesel locomotive by recording autographically the use of the throttle, transition and the reverse levers. The degree of efficiency obtained from the locomotive is dependent to a large extent on the manner in which the controls are manipulated.

2. The record of the various positions of the throttle in combination with the reverse lever offers a ready means for analyzing the handling of the locomotive in both forward and backward direction, particularly when switching is done.

3. The dial of the instrument provides a visual guide to the engineman for the selection of the transition point appropriate to the speed, and the corresponding record certifies whether instructions in this regard are followed.

4. In instances in which the engineman does not properly follow instructions, the record alerts the road foremen to a need for further instruction of the engineman. If the deviation from standard is caused by some emergency on the road, the record gives the engineman the means to show exactly what he did and why when faced with the emergency.

5. Increased and better-directed supervision, resulting from the analysis of the records, will raise the standard of both man performance and locomotive performance.

6. The record will enable supervisors to trace faults of locomotive operation which are beyond the control of the engineman. This naturally calls attention to the mechanical condition of the locomotive responsible for the operational fault.

7. The record readily identifies overloads due to operation in an incorrect transition at low speed or due to long operation in short-time rating of the traction motors, and proper methods to prevent a repetition can be put into effect.

8. The record of high-speed operation under power over railroad crossings with possible damage to commutators and brushes is brought to light, and necessary corrective measures can be taken to prevent their recurrence.

9. Excessive or dangerous wheel slips become immediately apparent, and efforts to prevent or put them under prompt control can be made effective.

10. An analysis of the autographic record of the actual performance makes it possible accurately to check tonnage ratings and schedules and make any necessary adjustments which an analysis of the record indicates.

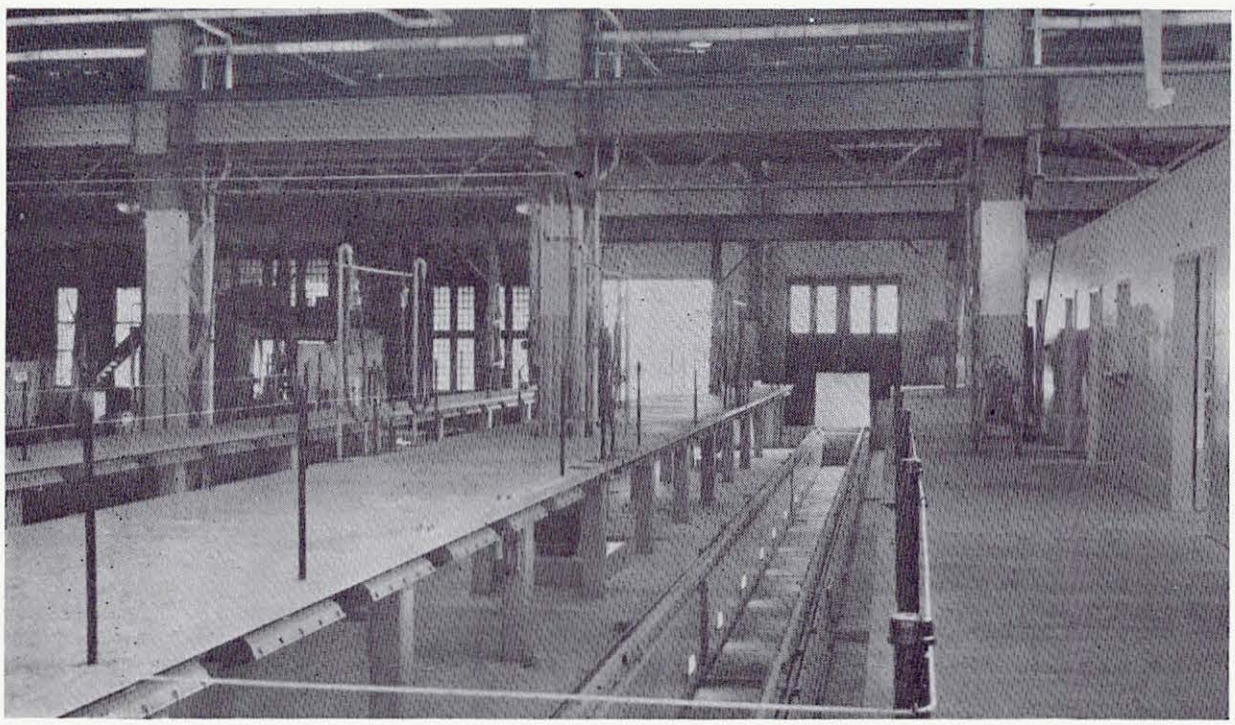
11. Correcting late transitions raises the efficiency of the locomotive with a consequent decrease in fuel consumption per thousand gross ton-miles.

12. By the use and careful analysis of each record, a uniformly high standard of operation on the road becomes at once attainable.

13. To be most effective, the records must be collected and analyzed as soon as possible after each engine crew has completed its respective run.

NEW UPHOLSTERING FOR CAR SEATS

A new line of Nylon fabrics has been announced by the Burlington Mills Corporation, 350 Fifth avenue, New York. Woven from du Pont Nylon yarns, these new fabrics are said to possess many outstanding advantages; among them, it is stated, they are cooler to the body than most materials, and their surface sheds dirt and dust and can be cleaned with a damp cloth. Also, Nylon has qualities that make it longer wearing, moth-proof, and resistant to damage by mildew and other fungus growths or soil rot. Moisture does not harm it and the fabric is also impervious to most chemicals. This material is also reported to be resistant to flame.



Looking across the new Diesel shop at Lafayette toward the locomotive entrance doors in the south wall

DIESELIZING A LOCOMOTIVE REPAIR SHOP

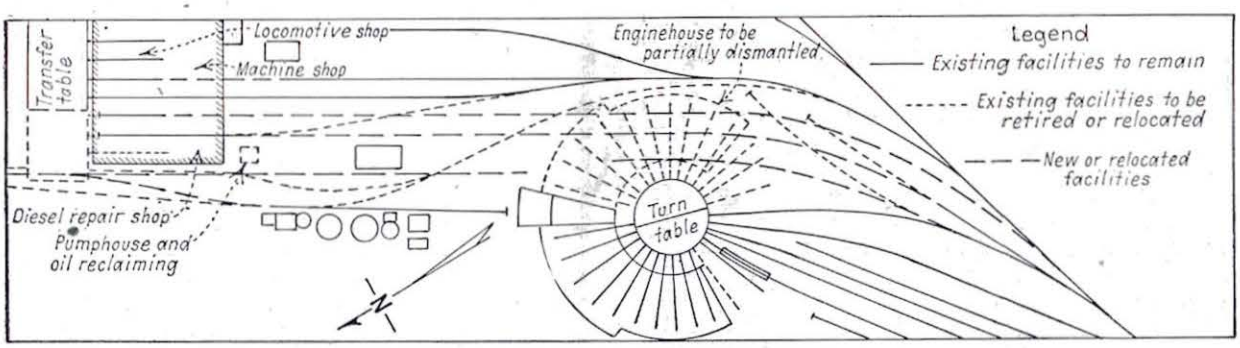
Monon builds facilities in existing structure as the first major step in complete conversion of its extensive terminal at Lafayette, Ind.

THE Chicago, Indianapolis & Louisville recently dedicated a new Diesel locomotive repair shop at Lafayette, Ind., marking completion of the first major step in converting the engine terminal and system locomotive repair facilities at this point in anticipation of complete Dieselization in the near future. Located in one end of an existing building housing the steam locomotive erecting and machine shops, the Diesel shop is a compact facility, designed, arranged, and equipped in accordance with the latest practices.

At present approximately 97 per cent of the Monon's motive power consists of Diesel-electric locomotives. With the delivery of six more units now on order, complete Dieselization of passenger, freight and switching service will be in effect. Thereafter the only steam power that will be maintained is that which will be required for stand-by service and emergency use. It is intended that Diesel maintenance work for the whole railroad will be concentrated in the new shop, which is being equipped to handle all operations except, possibly, heavy motor and generator repairs. However, Diesel inspection and fueling facilities currently in use at South Hammond, Ind., Indianapolis, and Louisville, Ky., will be continued in service.

In anticipation of complete Dieselization of its power, thorough studies were made by the Monon of the problem of providing Diesel repair facilities. It was found that the existing system locomotive shop at Lafayette was excellently adapted for economical conversion into a Diesel repair shop. The building containing this shop is of steel-frame construction, with brick walls, 413 ft. long and 171 ft. wide, with its long dimension extending in an east-west direction. The interior is divided by a row of columns into two longitudinal bays, the north bay, 78 ft. wide, containing the locomotive erecting shop, and the south bay, 93 ft. wide, the machine shop. Along the north side of the building is a transfer table which formerly served 14 stub tracks in the erecting shop.

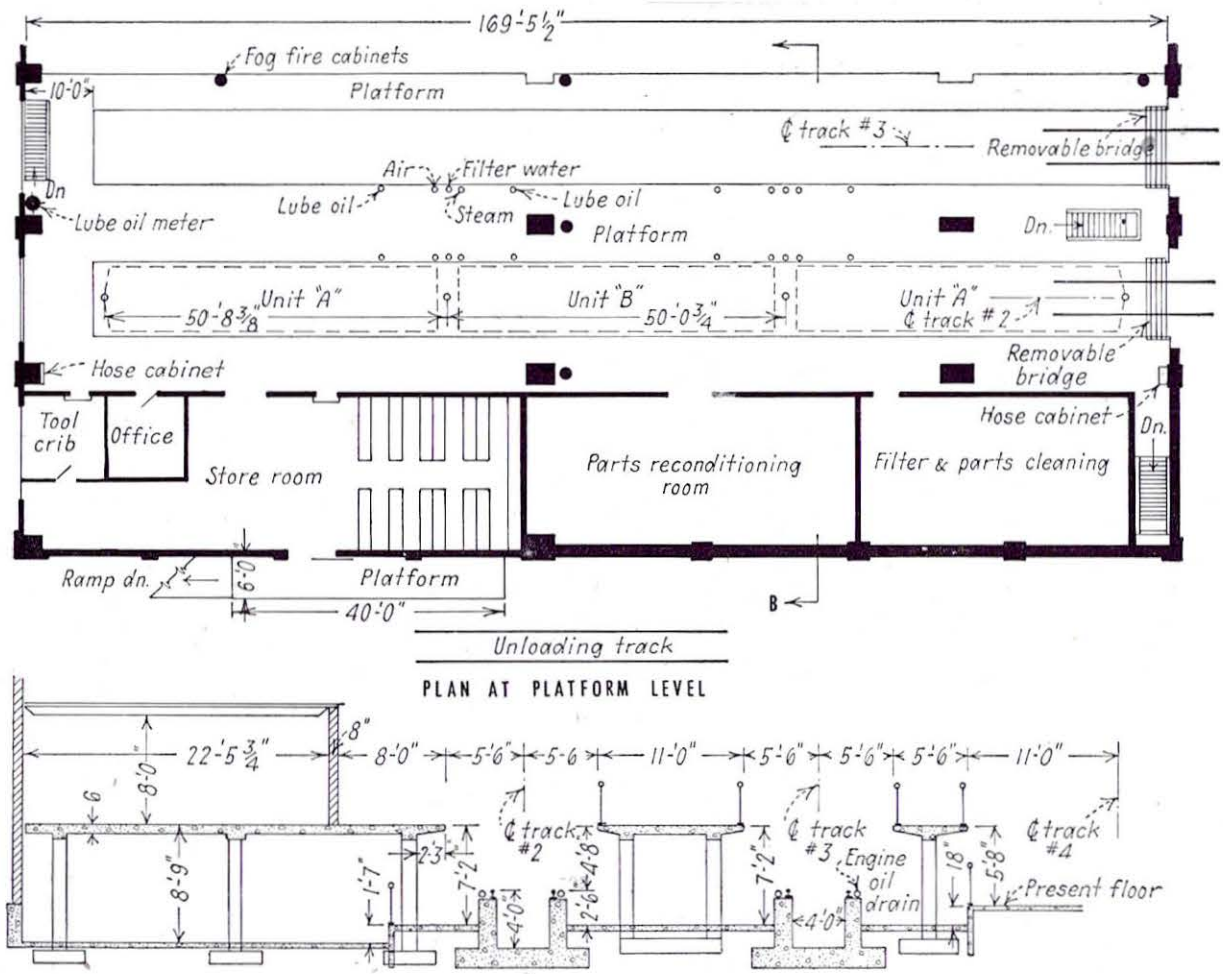
The new Diesel servicing shop occupies the west end of the building for a distance of 70 ft. The remaining portion of the existing shop will be used for heavy repairs. Prior to the recent alterations, the portion of the shop now occupied by the servicing



Plan of a portion of the engine facilities at Lafayette, showing the changes made or contemplated in converting the layout for handling Diesels

facilities contained five transverse tracks, numbered 1 to 5. Nos. 1, 3 and 5 were stub-end tracks, which were served by the transfer table, while Nos. 2 and 4, extending the full width of the building, entered it through doors in the south wall. Both of these latter tracks had inspection pits for part of their length, and Track No. 4, in addition, had a drop pit.

In constructing the Diesel shop the track nearest the end of the building (Track No. 1) was removed entirely to make space for auxiliary facilities, but the next four tracks have been, or will be, incorporated in the Diesel shop. Tracks 2 and 3, on 22-ft. centers and each of sufficient length to accommodate a three-unit Diesel locomotive, have full-length inspection pits,



Plan and section of the Diesel repair shop which is located at one end of the steam locomotive shop

dispatching that is given Diesels, "it would seem to be a fair conclusion" that "a reasonably substantial proportion of the locomotive inventory could be maintained in steam at a favorable operating cost as compared with Diesel power."

Mr. Alcock also suggested that oil-burning steam locomotives could be readily converted into coal burners if it became necessary to eliminate the use of oil as a railroad fuel to the maximum possible degree. Moreover, he stated that the "total resources of the nation" would "hardly" be utilized in a "total war" if consideration was not given to the "full utilization" of coal reserves. Presumably referring to the periodic coal strikes, Mr. Alcock added that "if the national interest indicates that the railroads should be encouraged to keep some volume of the locomotive inventory in steam power, then they should have assurance that there will be no interruption in their service due to a shortage in the coal supply."

Vice-President Early of Pullman-Standard made a statement to the effect that his company was ready and willing to do everything and anything it can to manufacture munitions in the event of another war, if that is what the government wants it to do.

He referred only briefly to the car situation, saying that Pullman was fully aware of the shortage problem and was participating in the undertaking to bring production to the 10,000-car monthly goal.

R. R. Young's Presentation

Chairman Young of F.R.P. appeared at the afternoon session of June 8. His statement was in general a reiteration of his previous attacks on the I.C.C. A.A.R., and alleged "banker" influence in the railroad industry.

Mr. Young also criticized the subsidization of railroad competitors "through various items of congressional pork," calling highway, air and water transport "the three congressional kept women." At the same time he referred to a "leading Presidential candidate" who is chiding Congress for not spending more money overseas; but Mr. Young never heard of the "candidate" saying a word about the need for conserving the railroads.

Calls Railroad Plant "Obsolete"

Meanwhile, Mr. Young had talked about the equipment situation, saying that "never has the railroad plant been so obsolete, yet never has there been less car buying." Shortages of steel comprised no excuse, he added, when there has been "plenty of steel and labor for the 10 million automobiles, trucks, buses and airplanes which have rolled off the assembly lines since V-J Day." He promised that the coal-burning, gas-turbine locomotive, which "C.&O. and other railroads will soon have," will be "far superior to these Diesels," but he fears that their "large-scale introduction may come too late."

Public Will Pay for Best Service

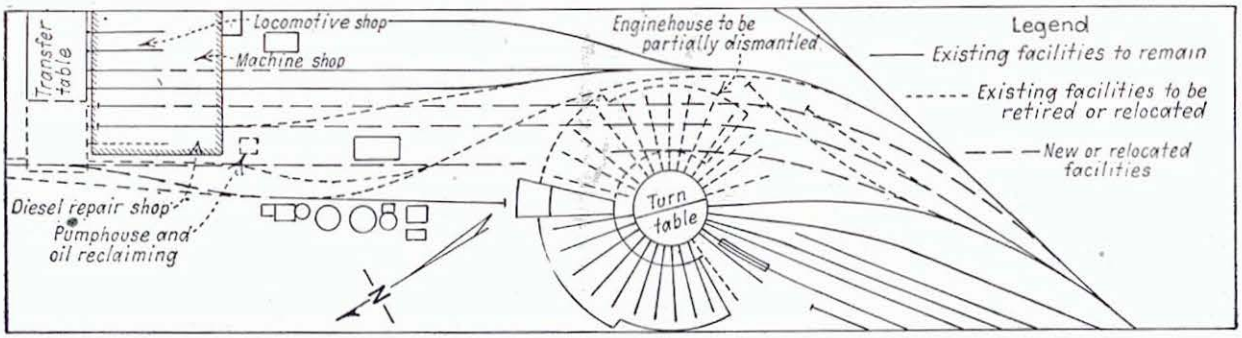
"The public is ready, willing and able to pay for the best rail service science can provide, and the national defense requires it," he went on. "The rails, well run and regulated, equally taxed, soundly consolidated, can knock the living daylights out of competition from any quarter."

The F.R.P. chairman next asked why an industry, which should be the "most vital and progressive" one in America, should be regulated "by an agency of 11 political appointees who average 64 years of age, of whom 8 are lawyers." Later on in response to questions from the former chairman of the committee, Representative Lea, Democrat of California, Mr. Young suggested that the I.C.C. be wiped out and that a "fresh start" be made with a department of transportation under a cabinet officer. When Mr. Lea suggested that a cabinet officer would be a political appointee, Mr. Young conceded that, but added that the cabinet member would take pride in making his department function properly.

Among other comment on the A.A.R., the F.R.P. chairman said that the association and the I.C.C. attacks the C.&O. "for waste" when it spends "a few dollars for research." Mr. Young added that he had just heard that the A.A.R. plans to spend $1,180,000 for a radio program—perhaps, he suggested, "to tell what a good job they did in the last war rather than to prepare for the next one," or "perhaps a million is for answering the F.R.P." In the latter connection Mr. Young understands that the A.A.R. a year ago called in all railroad "public relations experts" and asked them to devote all their energies to killing F.R.P. He went on to say that prizes won for C.&O. advertising indicate that it is going over with the public; and "we don't spend as much advertising now as we used to spend advertising our pussy cat."

Later on Mr. Young referred to what he called efforts to drive him out of the industry, saying that stories of a new campaign to that end would "break in tomorrow's papers." In response to an inquiry, C.&O. sources explained after the hearing that Mr. Young was there anticipating a minority-stockholder attack on the present management.

Other presentations at the hearings included those of American Trucking Association, Air Transport Association, American Waterways Operators, American Automobile Association, National Council of Private Motor Truck Operators, Automobile Manufacturers Association, and Truck-Trailer Manufacturers Association.



Plan of a portion of the engine facilities at Lafayette, showing the changes made or contemplated in converting the layout for handling Diesels

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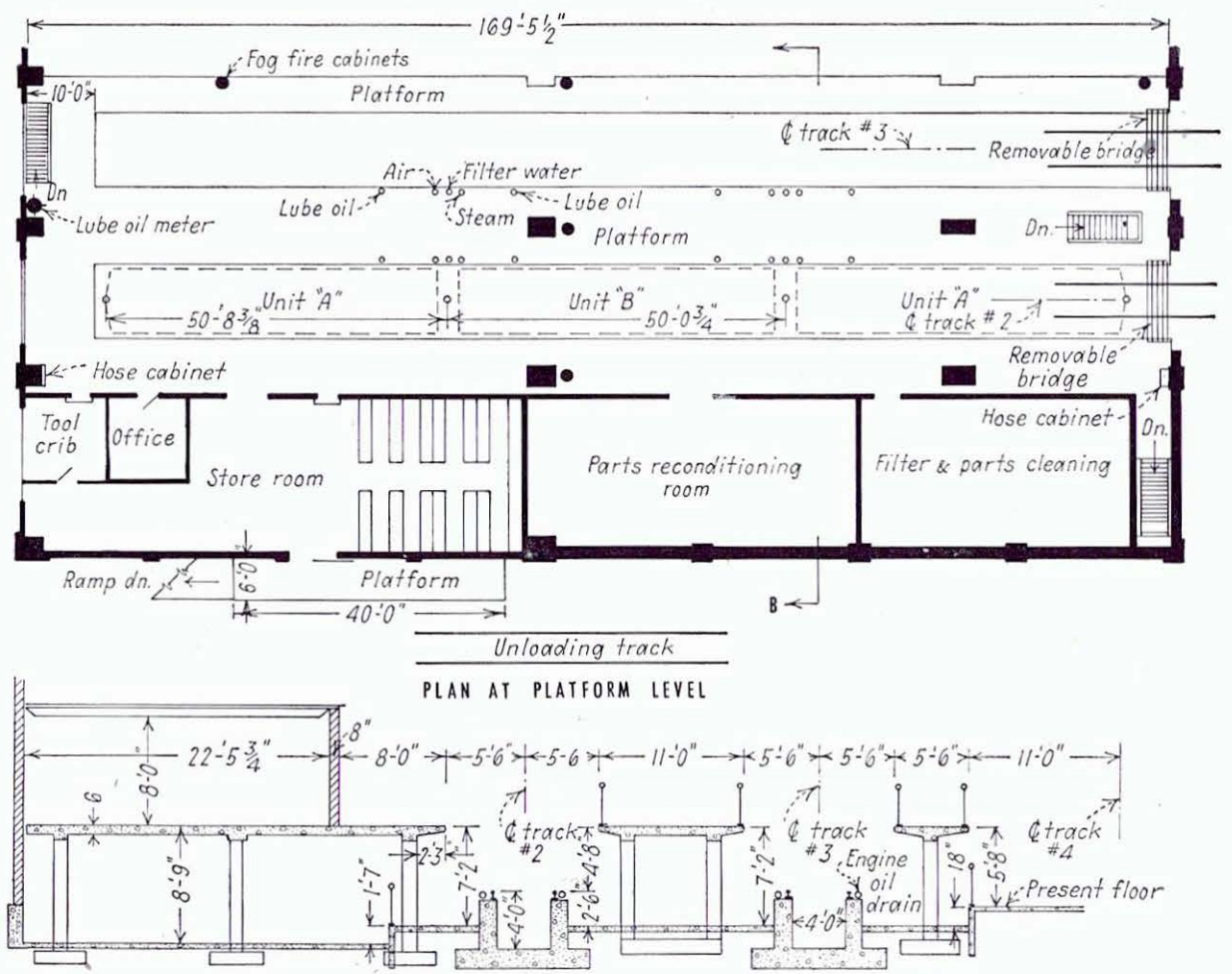
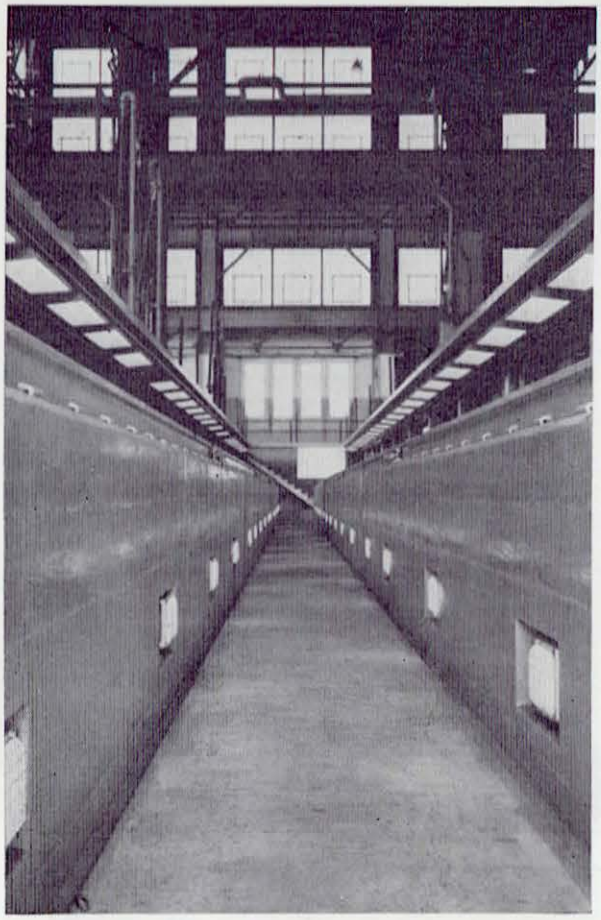
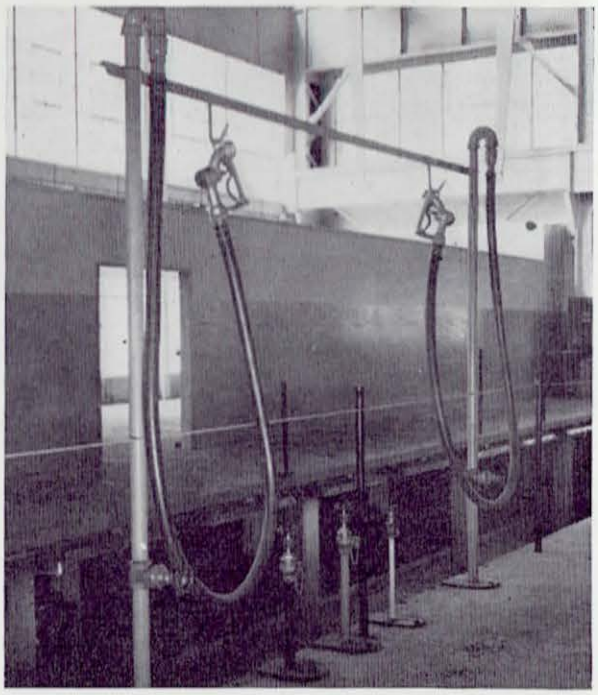
In constructing the Diesel shop the track nearest the end of the building (Track No. 1) was removed entirely to make space for auxiliary facilities, but the next four tracks have been, or will be, incorporated in the Diesel shop. Tracks 2 and 3, on 22-ft. centers and each of sufficient length to accommodate a three-unit Diesel locomotive, have full-length inspection pits,



Plan and section of the Diesel repair shop which is located at one end of the steam locomotive shop





Above—The various outlets and connections for servicing the locomotives with lubricating oil, and air, water and steam, are grouped on the island platform

Left—This view along one of the inspection pits emphasizes the well-lighted aspect of the whole shop

and a new door opening was made in the south wall to give Track 3 access to the shop from that direction. The former door openings in the north wall on the location of Tracks 2 and 3 have been partially walled up.

Track No. 4 has not been disturbed, but at Track No. 5 the plan is to install a 50-ton Whiting drop table which will permit the changing out of a pair of wheels and a motor without tying up other equipment. This is at present a stub track served from the transfer table, but it is to be extended south to tie in with a new track layout to be constructed to serve the new shop. Thus, upon completion of the track work, there will be four tracks entering the building from the south. Also, since the two easterly of these tracks (Nos. 4 and 5) will extend through the shop to the transfer table, it will be possible to move Diesel equipment transversely to any track in the building.

Follows Three-Level Plan

The design of the Diesel shop follows the conventional three-level plan in general use for such facilities. The lowest level is formed by the floors of the reinforced concrete inspection pits under Tracks 2 and 3, these floors being 4 ft. below the base of rail. On both sides of the pits is a depressed concrete floor which is 2 ft. 6 in. below the base of rail, and 18 in. below the existing floor level of the main shop. The upper working area is at car-floor level and consists of an area 30 ft. wide between Track No. 2 and the end of the building, an island platform 11 ft. wide between Tracks No. 2 and 3, and a platform 5 ft. 6 in. wide along the east side of Track No. 3.

The various areas at the upper level are connected by a walkway 10 ft. wide along the north wall of the shop, and also by removable bridges spanning Tracks 2 and 3 at the south wall. The floor construction at the upper level consists of reinforced concrete slabs supported on concrete posts. Removable hand rails are placed along all exposed edges of the upper working level, and also at other locations where there are differences in elevation between adjacent floor areas.

Outlets for servicing locomotives with lubricating oil, and all connections to air, raw water, treated water, and steam lines are located on the upper platform between the two tracks.

The upper level at the west end of the building has been enclosed except for a working area 8 ft. wide along Track No. 2. This enclosed space is partitioned to provide a service storehouse, a tool crib, a toilet and wash room, an office, and a parts-reconditioning room. This latter room is equipped with washing, dipping and rinsing tanks and a drying oven, all built in the shop. The rooms are heated by radiators adapted from heating units used in army hospital cars, a number of which have been acquired by the Monon.

The space underneath the enclosed portion of the upper level is to be used for storing servicing equipment and supplies and will also serve as a battery room.

Ramp Connects Levels

For the receipt of materials and parts an outside platform was constructed at the west end of the building, which is served by an unloading track. A descending ramp, extending around the corner of the building to a doorway in the north wall, permits the trucking of materials between the platform and the lower working level inside the shop.

All concrete used for the platforms and floors was treated with Boro-Grit, a compound designed to increase the surface friction of concrete floors and thereby reduce the possibility of injuries due to slipping. In constructing the new pits, the existing pits for Tracks 2 and 3, extended and reconditioned as necessary, were incorporated in them.

A Well-Lighted Shop

Exceptional care has been taken to provide good illumination at all working levels. Daylight on the upper working levels from large window areas in each side of the building has been supplemented by the addition of mercury vapor lights hung from the ceiling. For lighting the lower level, light fixtures with fluorescent tubes have been fastened to the undersides of the platforms, forming a practically continuous band of light along both sides of each track. In addition, special fixtures have been recessed into the sides of each pit which thoroughly illuminate these pits and the lower parts of the locomotives.

Provision for fire protection includes strategically located water connections equipped with Bowser automatic fog nozzles. With this type of equipment fog is sprayed from the nozzle immediately and automatically as the hose is taken from its support.

At the track entrances to the building it is the intention to install Mahon rolling steel doors. These doors, on hand but not yet installed, are designed to roll up or down by push-button control. The former door openings at the transfer-table end of Tracks 2 and 3 have been closed, partly with brick and partly with glass-block panels, up to the elevation of the upper platform level. Above this level, however, the doors were retained to be used when necessary as an aid to ventilation.

The interior of the Diesel servicing shop has been finished in accordance with a scientifically designed color scheme. The side walls were painted a light blue above a dado of darker blue. A bright blue enamel-like paint was used for the side walls of the pits and for the concrete columns. The sides of the rails over the track pits, which are new 112-lb. rails, were painted yellow, and all fire-control stations were painted red. In painting the piping in the shop a color code was used which makes it possible to identify the function of each pipe at a glance. In this system seven different colors were used and, for ready reference, an identification chart was stenciled at convenient locations on the concrete columns. Work yet to be done on the shop building includes painting the remainder of the interior and the tuck pointing of the brick walls.

Outside of and adjacent to the southwest corner of the shop, a 16-ft. by 16-ft. brick building was constructed to serve as a pumphouse and to house equipment for reclaiming used oil drained from locomotives. For this purpose Gustin-Bacon Refin-oil equipment will be installed shortly. Buried underground just south of this building are two 8,000-gal. supply tanks for lubricating oil, a 1,000-gal. used-oil tank and a 6,000-gal. cooling-water tank. The piping in the new shop has been so arranged that the lubricating oil drained from a Diesel on either inspection track will be pumped into the used-oil tank. From here it will be pumped into the reclaiming unit, after which it will be tested and delivered to one of the supply tanks. When Diesel cooling water, containing chromates as a corrosion inhibitor, is drained from a locomotive in the shop it is pumped into the water tank and held for re-use.

Among the existing equipment in the old locomotive shop which will be of value in repairing Diesel locomotives are three traveling cranes. One of these cranes, with a capacity of 200 tons, operates throughout the length of the old erecting shop. With it a unit of a Diesel locomotive, when spotted in the proper position, may be lifted and moved transversely to any track in the shop. To adapt it to this function the crane has been equipped with two car-body hangers. Traveling underneath this crane is a 15-ton auxiliary crane which also operates the full length of the shop. In addition, there is a 10-ton traveling crane which operates over the machine-shop bay.

Another feature of the old shop which will be used to good advantage is a pit in which heavy parts may be cleaned in a boiling caustic solution. This is located north of the shop on the opposite side of the transfer table. It consists of a pit approximately 40 ft. long, 10 ft. wide and 6 ft. deep, with perforated steam pipes placed in the bottom. When the pit is filled with a caustic solution and steam is forced out through the pipe openings, the solution is agitated violently, causing a quick-cleaning action. The pit is served from the transfer table, using a steel car by means of which trucks, wheels and many other heavy parts may be eased down a ramp into the pit with a winch.

The track layout to give access to the Diesel shop from the south is partly of a temporary nature pending the dismantling of a portion of the existing steam enginehouse which is located about 400 ft. south of the west end of the shop building. When this work has been done a permanent track layout will be constructed, and servicing facilities, including a fueling and sanding plant and a Whiting car washer, will be installed.

The wiring and piping on this project were installed under contract. All other work was done by Monon forces. The work was initiated by F. E. Cheshire, vice-president of the Monon. The shop was designed and constructed by the company's engineering department, which consulted closely during the work with V. C. Golden, general mechanical assistant.

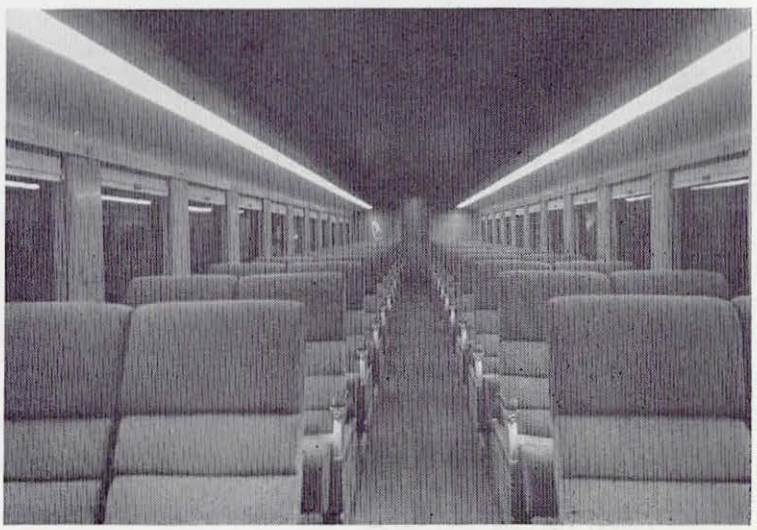
Above—By varied wall treatment at the ends and in the middle of the dining space the effect of three small rooms is created in the dining cars of the newly equipped Twin Cities "Hiawathas" which made their inaugural runs on May 29 after a fifth re-equipment in the thirteen years these trains have been in service on the Chicago, Milwaukee, St. Paul & Pacific

Left—Wide visibility enhances enjoyment of the scenery in the Sky Top observation lounge. Interior lighting can be subdued on clear nights

NEW EQUIPMENT FOR TWIN CITIES "HIAWATHAS"

Left—A look at the Sky Top lounge from the ground. Longitudinal bands of orange and maroon, the traditional Milwaukee colors, are employed on the exterior of the train

Below—An unusual feature of the general illumination of the new "Hiawatha" coaches is continuous fluorescent lighting along the front of the luggage racks



REPORT ON READINESS FOR EMERGENCY

A.A.R., Robert R. Young and representatives of car-building and locomotive industries make presentations before House committee on interstate and foreign commerce

Representatives of the Association of American Railroads this week told the House committee on interstate and foreign commerce that the railroads are now "better able to meet the impact of a national emergency than was the case in 1939," and that they can best maintain and improve their ability to contribute to the national security if they are permitted by government policies "to maintain their properties and their organization in sound condition, both physically and financially." At the same time the committee heard from Robert R. Young, chairman of the Chesapeake & Ohio and the Federation for Railway Progress, that "far from being prepared for war, deep-rooted government policies are rapidly undermining the railroads' effectiveness even for peace."

The "solution" recommended by Mr. Young is consolidation into "four or five great regional systems." The A.A.R. presentations were made by Dr. Julius H. Parmelee, vice-president and director of the Bureau of Railway Economics, and James H. Aydelott, vice-president in charge of the Operations and Maintenance Department, who recommended that the monthly goal of freight-car production be raised from 10,000 to 12,000 cars and predicted that Dieselization of the railroads might result in a reduction in the industry's overall consumption of fuel oil in view of savings from supplanting oil-burning steam engines with Diesels.

Presentations were also made by Samuel M. Felton, president of the American Railway Car Institute; G. W. Alcock, president of the Franklin Railway Supply Company, and Stephen T. Early, vice-president of the Pullman-Standard Car Manufacturing Company. Mr. Alcock raised questions about the trend toward Dieselization, suggesting that what he considers a proper appraisal of the situation would indicate that a "substantial portion" of the railroad locomotive inventory could be maintained in steam engines.

Part of General Inquiry

The committee received the presentations at public hearings on that phase of its "national transportation inquiry" which relates to the "readiness and ability of the nation's forms of transportation to meet any defense traffic load." Presiding at the sessions, which extended over three days, June 7-9, was the committee's chairman—Representative Wolverton, Republican of New Jersey.

Mr. Wolverton opened the hearing with a statement outlining the purpose and scope of the inquiry, the statement being along the lines of the one issued last month in connection with the announcement of plans to hold the hearings, as reported in *Railway Age* of May 29, page 55. Listed by the chairman among matters about which the committee hoped to have presentations was the fuel situation, including "the alteration of types of power or efficiencies of engines to conform to or best utilize petroleum products," and "the retention of standby railroad and coal facilities for alternate types of power utilization." The chairman went on to pay tribute to "all who participated" for the transportation job done in World War II, but he added an expression of the committee's concern as to "our ability again to meet such an emergency demand."

Dr. Parmelee described the A.A.R. presentation generally as one which was based on the proposition that "railroads can best contribute to the national security when they are enabled to maintain their properties and their organizations in sound condition, both physically and financially," and that "government policies looking to that end are in the public interest, both in time of actual or threatened national emergency and in times of peace."

Reserves Being Depleted

"Present financial reserves of the railroads will not be adequate to carry out the capital improvement program necessary to maintain a railroad plant prepared for any national emergency, the A.A.R. vice-president warned. He explained that reserves built up by the railroads during the war are being rapidly depleted because of the prevailing high levels of material and labor costs. Consequently, he added, much of the money needed for new and improved facilities must come from current and future earnings or from borrowings in the market where credit depends on earnings. As to earnings, Dr. Parmelee noted that the rate of return averaged less than 5 per cent during the war years, and that it has averaged "only 3.1 per cent" since the close of the war.

When World War II was in the threatening stage, Dr. Parmelee said, the railroads "were quick to respond"; to the "maximum extent possible under then existing conditions, they restored their available facilities to serviceable condition and added new facilities." The A.A.R. vice-president next recalled how the wartime job was done with the cooperation of shippers and government agencies; but he pointed out also that it involved "hard usage" of railroad facilities, thus creating conditions which "dictated the need for a broad capital improvement program."

Costs Outrun Revenues

"Meanwhile," he said in closing, "government subsidies to competing modes of transport may presage a return to the unfavorable conditions that existed in the prewar period. Less efficient carriers, including those that contribute the least to the nation's needs in times of national emergency, are being built up at the expense of the one carrier that can, must, and will shoulder the load in time of war. The best insurance this nation can obtain for adequate and efficient transportation service in a national emergency is the adoption of policies under which the railroads can earn a fair return.

"The record offers abundant proof that the nation will be best served by a system of transportation which under fair and equal competitive conditions stands on its own feet and prospers or fails to prosper according to true economic standards."

Sees Less Fuel Oil Used

A.A.R. Vice-President Aydelott's expectation that increased railroad use of Diesel-electric locomotives could result in a reduction of the industry's overall consumption of fuel oil was based on a careful evaluation of the situation, he said. "During 1945," he explained, "the railroads used a total of 106,718,000 barrels of oil on oil-burning steam locomotives which are on principal assignments upon railroads in southwestern states and in California. . . . In that same year 3,722,000 barrels of fuel oil were consumed on Diesel locomotives. In 1947 consumption of fuel oil on oil-burning steam locomotives had fallen to 89,782,000 barrels while consumption of Diesel oil had increased to 17,456,000 barrels. It is estimated that about 30,000,000 barrels will be used on Diesels in 1948, while it is anticipated that consumption of oil on oil-burning steam locomotives will decline further in 1948 and progressively thereafter, as is now the trend.

"The expansion of ownership of Diesel locomotives on roads formerly using oil on steam engines is expected to bring a gradual decline in the number of these steam locomotives in operation. It is reasonably possible, therefore, that consumption of fuel oil on both types of locomotives will be no greater in total gallonage in the foreseeable future than it was in 1945 and 1947 and it may conceivably be less. The power output obtained from one gallon of Diesel locomotive fuel will produce the same gross ton-mile product as five gallons of fuel oil burned on a steam locomotive, expansion of the use of Diesel locomotives and retirement of oil-burning steam locomotives will produce further operating economies and conserve our oil resources."

With the extension of Dieselization, however, the railroad industry "is not overlooking the possibilities of developing coal-burning locomotives that will have greater efficiency and flexibility," Mr. Aydelott also said. In that connection, he referred to tests of a coal-burning, steam-turbine, electric locomotive, and to another type, "still in the development stage," which will use powdered coal to operate a turbine which will generate electric current for propulsion. "The latter type," the A.A.R. vice-president added, "gives promise of a lower axle load such as would permit it to operate on lines of lighter bridging and track structure upon which the Diesel locomotive has come to be regarded with so much favor. The cost of rehabilitation of such lines to accomodate the most modern steam power of conventional design would be prohibitive." Mr. Aydelott also advised the committee that "periodic stoppages in the production of coal have given impetus to the introduction of Diesel power."

In advocating a raising of the monthly goal of freight car production from 10,000 to 12,000 cars, Mr. Aydelott called that situation "the principal bottleneck which retards restoration of our transportation system to a condition suitable to the prospect of possible future national emergencies." Previously, he had pointed out that the 10,000-car goal has not yet been reached, although "steel for the manufacture of pleasure automobiles and trucks by the hundreds of thousands seems to be in abundant supply."

Situation Better Than in 1939

Meanwhile, Mr. Aydelott's appraisal of the present situation as a whole led him to the general conclusion that "the railroad plant of today, taking into account both fixed property and rolling equipment, would be better able to meet the impact of a major national emergency than was the case in 1939, when the second world war broke out in Europe." In this connection he found the car and locomotive situations better than they were in 1939; he thought that World War II experiences would prompt the armed services to cut down troop movements and furlough travel during the next emer-

gency; and he noted that port and rail facilities built in World War II are still available for use, as are industrial plants, the wartime construction of which imposed a heavy transportation burden which would not be duplicated. Finally, Mr. Aydelott pointed out that pipe lines, such as "Big Inch" and "Little Inch," should preclude loading onto the railroads anything like World War II's movement of oil to the eastern seaboard.

Capacity for More Car Building

President Felton of the American Railway Car Institute told the committee that the railroads, "throughout the war and down to the present time, have been performing miracles in handling peak traffic loads with inadequate equipment." At the same time he warned that "in the event of another huge defense or war effort, we should not forget that freight cars may be fully as important as tanks or bullets."

With respect to the present 10,000-car monthly goal, Mr. Felton said that figure "is generally regarded as a minimum." He added that the contract builders represented by the institute have the capacity under "ideal" conditions to produce "around 14,000 cars monthly." Making allowance for the absence of "ideal" conditions, Mr. Felton thought it "conservative" to state that the builders could maintain a monthly output of 12,000 cars. He identified the shortage of steel as the "chief restriction" which prevents attainment of that production level.

Meanwhile, Mr. Felton assured the committee that the contract builders will continue, as they have in the past, to make the "utmost use" of steel received. "Actually," he added, "we have been producing more cars than the amounts of steel received would build. This means we have been drawing on our limited steel supplies to a dangerous degree that is bound to result in some curtailment of production, and possibly shutdowns and layoffs, until supply pipe lines are filled."

To maintain production for one year at the 12,000-car monthly level, which was recommended by Mr. Aydelott, would require nearly 2,400,000 tons of rolled steel, Mr. Felton calculated. This would compare with 850,000 tons used in building about 53,000 cars in 1947. "I state the problem," the institute president added. "I cannot give you the answer."

Suggests More Car Orders

In closing, he suggested that railroad shop facilities be used to rebuild and repair old freight cars, "whenever such is economically sound, so that the greatest number may be kept operating"; and that the railroads place with contract builders "additional orders for new freight cars in such quantities that they may plan for balanced production at levels high enough to insure peak efficiency." In the latter connection, Mr. Felton said previously that orders on contract-builder books as of June 1 totaled "a bit under 90,000" cars. Mr. Aydelott had said that the railroads have not had fewer than 100,000 freight cars on order during the past year, but he explained that this figure included "programmed production in railroad shops."

President Alcock of the Franklin Railway Supply Company referred to a report which the Locomotive Institute made last January to Secretary of Defense Forrestal. Portions of that report which Mr. Alcock mentioned had noted the trend toward Dieselization of railroad motive power and raised questions as to the importance of maintaining builder and specialty-manufacturer facilities for constructing steam locomotives and railroad facilities for servicing them—"if steam locomotives in any volume are essential to the war effort."

Forrestal Sees Need for Steam Power

From Secretary Forrestal's reply, Mr. Alcock quoted this statement: "Military wartime requirements for transportation make imperative the continuation during peacetime of coal-steam operation over a large part of the railroads of the United States in order to conserve liquid fuels, to insure the maintenance of terminal and right-of-way facilities, and to perpetuate the technical skills needed in the construction, maintenance, and operating of coal-steam locomotives. The peacetime demand thus created for steam locomotives, which under normal conditions can be either coal or oil burning, should result in a demand for steam locomotives which would justify the member companies of your institute in maintaining production facilities and in carrying forward desirable experimental work."

Mr. Alcock emphasized the institute's position that "the Diesel locomotive has established itself as an efficient and economical motive power unit," but he went on to say that "for a properly balanced power program for the Class I railroads, it would seem as though modern steam locomotives should form some part of the locomotive inventory." They could "properly provide power for many classes of passenger service, and certainly for the bulk of freight service," he suggested, having previously indicated his view that the Diesel had established itself "in switching service and in certain symbol passenger train service."

The Franklin president next referred to experiments with steam-turbine and gas-turbine locomotives, and he went on to say that "much of the propaganda in favor of the Diesel has compared modern Diesels with obsolete steam locomotives." In his judgment, if modern steam locomotives were given the improved handling facilities and the

dispatching that is given Diesels, "it would seem to be a fair conclusion" that "a reasonably substantial proportion of the locomotive inventory could be maintained in steam at a favorable operating cost as compared with Diesel power."

Mr. Alcock also suggested that oil-burning steam locomotives could be readily converted into coal burners if it became necessary to eliminate the use of oil as a railroad fuel to the maximum possible degree. Moreover, he stated that the "total resources of the nation" would "hardly" be utilized in a "total war" if consideration was not given to the "full utilization" of coal reserves. Presumably referring to the periodic coal strikes, Mr. Alcock added that "if the national interest indicates that the railroads should be encouraged to keep some volume of the locomotive inventory in steam power, then they should have assurance that there will be no interruption in their service due to a shortage in the coal supply."

Vice-President Early of Pullman-Standard made a statement to the effect that his company was ready and willing to do everything and anything it can to manufacture munitions in the event of another war, if that is what the government wants it to do.

He referred only briefly to the car situation, saying that Pullman was fully aware of the shortage problem and was participating in the undertaking to bring production to the 10,000-car monthly goal.

R. R. Young's Presentation

Chairman Young of F.R.P. appeared at the afternoon session of June 8. His statement was in general a reiteration of his previous attacks on the I.C.C. A.A.R., and alleged "banker" influence in the railroad industry.

Mr. Young also criticized the subsidization of railroad competitors "through various items of congressional pork," calling highway, air and water transport "the three congressional kept women." At the same time he referred to a "leading Presidential candidate" who is chiding Congress for not spending more money overseas; but Mr. Young never heard of the "candidate" saying a word about the need for conserving the railroads.

Calls Railroad Plant "Obsolete"

Meanwhile, Mr. Young had talked about the equipment situation, saying that "never has the railroad plant been so obsolete, yet never has there been less car buying." Shortages of steel comprised no excuse, he added, when there has been "plenty of steel and labor for the 10 million automobiles, trucks, buses and airplanes which have rolled off the assembly lines since V-J Day." He promised that the coal-burning, gas-turbine locomotive, which "C.&O. and other railroads will soon have," will be "far superior to these Diesels," but he fears that their "large-scale introduction may come too late."

Public Will Pay for Best Service

"The public is ready, willing and able to pay for the best rail service science can provide, and the national defense requires it," he went on. "The rails, well run and regulated, equally taxed, soundly consolidated, can knock the living daylights out of competition from any quarter."

The F.R.P. chairman next asked why an industry, which should be the "most vital and progressive" one in America, should be regulated "by an agency of 11 political appointees who average 64 years of age, of whom 8 are lawyers." Later on in response to questions from the former chairman of the committee, Representative Lea, Democrat of California, Mr. Young suggested that the I.C.C. be wiped out and that a "fresh start" be made with a department of transportation under a cabinet officer. When Mr. Lea suggested that a cabinet officer would be a political appointee, Mr. Young conceded that, but added that the cabinet member would take pride in making his department function properly.

Among other comment on the A.A.R., the F.R.P. chairman said that the association and the I.C.C. attacks the C.&O. "for waste" when it spends "a few dollars for research." Mr. Young added that he had just heard that the A.A.R. plans to spend $1,180,000 for a radio program—perhaps, he suggested, "to tell what a good job they did in the last war rather than to prepare for the next one," or "perhaps a million is for answering the F.R.P." In the latter connection Mr. Young understands that the A.A.R. a year ago called in all railroad "public relations experts" and asked them to devote all their energies to killing F.R.P. He went on to say that prizes won for C.&O. advertising indicate that it is going over with the public; and "we don't spend as much advertising now as we used to spend advertising our pussy cat."

Later on Mr. Young referred to what he called efforts to drive him out of the industry, saying that stories of a new campaign to that end would "break in tomorrow's papers." In response to an inquiry, C.&O. sources explained after the hearing that Mr. Young was there anticipating a minority-stockholder attack on the present management.

Other presentations at the hearings included those of American Trucking Association, Air Transport Association, American Waterways Operators, American Automobile Association, National Council of Private Motor Truck Operators, Automobile Manufacturers Association, and Truck-Trailer Manufacturers Association.

GENERAL NEWS

Labor Groups Urge Retention of R. L. A.

Would continue present collective bargaining set-up

Retention of the Railway Labor Act as a means of conducting collective bargaining within the railroad industry was urged by two railroad labor representatives at hearings June 8 before a joint congressional committee on labor-management relations. The committee, of which Senator Ball, Republican of Minnesota, is chairman, has been holding hearings since May 24 in order to receive from both management and labor proposed amendments to the Labor-Management Relations Act (Taft-Hartley Act) of 1947. It especially invited testimony to show how the law's provisions regarding industry-wide bargaining and stoppages should be strengthened to meet strike threats in the railroad, coal and steel industries.

As reported in *Railway Age* of June 14, 1947, page 1229, employers, employees and labor-relations matters subject to the R.L.A. are generally excluded from the scope of the Taft-Hartley Act. The views of railroad labor were expressed at the June 8 session by A. E. Lyon, executive secretary, Railway Labor Executives' Association, and B. A. Whitney, director, educational and research bureau, Brotherhood of Railroad Trainmen. J. Carter Fort, vice-president and general counsel of the Association of American Railroads, was tentatively scheduled to appear before the committee on June 12.

"Unmatched Record"

According to Mr. Lyon, the R.L.A. has a record which cannot be approached by any other statute or in any other field of industry. "Only a few isolated strike situations have developed, on small individual roads, and in but one case has there been a national strike, and this lasted for only two days," he said, in reviewing the operations of the National Railroad Adjustment Board and the National Mediation Board since the establishment of the former in 1934. "We challenge any major industry, or any system of adjustment of labor disputes to match that record."

Mr. Lyon said that the R.L.A. establishes a "comprehensive system" for the settlement of labor disputes in the railroad industry. "We sincerely believe," he added, "that the . . . Act is the best example of the blending of public pressure and individual economic freedom that has yet been devised. . . The force of public pressure is brought to bear to induce settlement. That force is powerful and to date has proved effective. We see no reason why this well balanced and successful system should be disturbed."

Mr. Lyon expressed strong opposition to the enactment of S. 2619, sponsored by Senator Knowland, Republican of California, to repeal Section 212 of the Taft-Hartley Act. Section 212 exempts the railroad industry from those provisions [Title II] of the Taft-Hartley Act setting up a system of mediation and conciliation for industries affecting commerce and providing for the establishment of fact-finding boards to investigate the issues involved in disputes that threaten national emergencies, and providing for the postponement of any resulting work stoppage.

Would "Confuse" Situation

Enactment of the bill, he said, would result in "indescribable" duplication and confusion of jurisdiction between the N.M.B. and the Federal Mediation and Conciliation Service and would bring about chaos in every stage of the handling of a railway labor dispute. The bill can only be viewed as a "rash gesture" toward bringing into play in railway labor disputes the injunction provisions of Title II, he asserted, adding that the imposition of an injunctive remedy would be simply a "gratuitous insult" to the railroad workers and "an irritant calculated to generate unrest rather than to avoid it."

Mr. Lyon told the committee that he was concerned with the fact that so few of the "general national movements" of the past 10 years have been disposed of in conference or in mediation. "Arbitration or emergency board investigation is coming to be taken too much for granted," he said. "An inquiry that would reach and eliminate the causes of this development would be a major contribution, since nothing can be more clear than that issues settled at the conference table will never become national crises. . . . I am certain that the failure to arrive at settlements in the conference or mediation stage is not attributable to any lack of good will or good intention on either side of the table. . . . Rather I suspect the causes lie more deeply in maladjustments of the relationships between the railroad industry and the rest of our economy."

The R.L.E.A. officer also averred that there is a "popular misconception" that railroad employees are the "aristocracy of labor" with respect to the enjoyment of good wages and working conditions. In this connection, he cited, as an example of the various "glaring aspects" in which the position of railroad labor has seriously deterioriated in relation to other industrial workers, the view that railroad labor is the only "substantial group" of industrial workers which does not have a regular work week of 40 hours or less with premium pay for overtime.

According to Mr. Whitney, the R.L.A. has been "unusually successful" in maintaining peace in the railroad industry and in encouraging cooperation between labor and the carriers. One of the most important reasons why the act has been effective, he said, rests in the fact that its provisions were formed in the light of the "extensive experience" of the labor organizations and the railroads. The R.L.A., he said, was, in effect, a "joint code" of labor relations worked out between railroad labor and management and supported by them in Congress.

Mr. Whitney told the committee that the difficulties in the railroad industry in the past few years have "stemmed in the main" from economic conditions, rather than from any inadequacy in the R.L.A., and in this respect referred to increases in the cost of living. "Government seizure and injunctions do not meet the basic problem—the need for wages adequate to meet the steadily increasing cost of living and the need for safe and reasonable conditions of work," he went on. "Injunctions disrupt union-management cooperation and lend themselves to abuse and injustice."

Mr. Whitney held that, if the proposal to bring railroad labor under the Taft-Hartley Act is to take advantage of the 80-day injunction period, Congress should bear in mind that, under the R.L.A., both employers and employees are subject to limitations for a "much longer period" than that provided for in the Taft-Hartley Act. "For instance," he said, "the wage-rules movement which culminated in a strike in May, 1946, was inaugurated in 1944. Anyone who has had experience in dealing with the human relationships of industry knows that prolonging injustices aggravates rather than solves them. . . . The important thing to note about the R.L.A. is that every opportunity is afforded for amicable settlement by agreement or by voluntary action of the parties."

Mr. Whitney said he cannot see the need for imposing "needless restrictions and limitations" upon the freedom of contract and "democratic negotiation" in the railroad industry or in any other industry.

He said that for Congress to con-

Unemployment Insurance Act's flat 3 per cent levy, would be graduated on the basis of the balance in the Railroad Unemployment Insurance Accout, which now amounts to more tha $900,000,000. The rate would remain at ½ per cent as long as the balance was $450,000,000 or more. If the balance fell below that figure, the tax would be increased by graduated steps of ½ per cent for each $50,000,000 drop until the 3 per cent rate was restored when the fund fell below $250,000,000.

The House's unanimous action on the Wolverton bill was preceded by a brief period of discussion during which several members took advantage of the opportunity to state their position in favor of the legislation. Another pending bill introduced by Mr. Wolverton is H.R.6799, which would amend the Retirement Act to increase salaries of members of the Railroad Retirement Board from $10,000 a year to $15,000.

Southern and Lehigh Valley Make Schedule Changes

The Southern has announced a new, faster schedule for the "Skyland Special" between Jacksonville, Fla., and Asheville, N. C. Since the change, the train departs from Jacksonville at 9:05 p.m., the same as the previous schedule, but arrives in Asheville at 11:30 a.m. instead of 12:20 p.m., a saving of 50 minutes. Southbound, the train now departs from Ashville at 4:45 p.m. instead of 3:30 p.m. and arrives in Jacksonville at 7:30 a.m., an improvement in schedule of 1 hr. and 5 min.

A faster schedule on the Lehigh Valley's "Asa Packer" went into effect on May 26. Train 25, which leaves Pennsylvania Station, New York, at 6:50 a.m., now arrives in Wilkes-Barre, Pa., at 11:35 a.m. and in Pittston, Pa., at 11:59 a.m., a 23-min, saving. Eastward, there is a 10-min. reduction in running time from Pittston to New York.

J. W. Barriger Addresses A.S.M.E. Meeting at Milwaukee

During the semi-annual meeting of the American Society of Mechanical Engineers, May 30 to June 5, at Milwaukee, Wis., the Railroad division of the society participated in joint sessions with the Machine Design and Gas Turbine divisions on June 1 and conducted an all-day meeting on June 3, devoted to various aspects of railway passenger car design and including an address on "Passenger Potentials," by J. W. Barriger, president of the Chicago, Indianapolis & Louisville.

Mr. Barriger stressed the contribution of engineers in developing modern design features; outlined some of the problems in connection with satisfactory, self-sustaining passenger transportation; and explained the difficulty in determining actual passenger service costs under present I.C.C. accounting rules. He said that, in view of an ever-increasing population and urge to be on the move, it is inconceivable that the genius of America, which has adapted mass production to almost everything used in important quantities in this country, will fail to make railroads commercially successful mass producers of passenger transportation.

Both technical sessions of the Railroad division on June 3, presided over by Chairman P. W. Kiefer, chief engineer motive power and rolling stock of the New York Central, were attended by approximately 130 representative railway and supply company engineers. At the morning session, papers were presented on "Thermal Environment of Railroad Passenger Cars," by K. A. Browne, research consultant, and S. G. Guins, project engineer, Chesapeake & Ohio, Cleveland, Ohio; and on "Visual Passenger Comfort," by Brooks Stevens, industrial designer, Brooks Stevens Associates, Milwaukee, Wis.

Following a luncheon, sponsored by railway equipment supply companies at the Milwaukee Athletic Club and addressed briefly by C. H. Buford, president of the Chicago, Milwaukee, St. Paul & Pacific, the Railroad division held its second technical session of the day, two additional papers being presented and discussed, as follows: "Truck Riding Comfort," by K. F. Nystrom, chief mechanical officer of the C. M. St. P. & P.; and "Decibel Level," by W. A. Jack, acoustical research consultant, Johns-Manville Company, New York.

Woodruff and Whitney Debate Nationalization of Railroads

American railroads are a public utility and "should be operated for the public instead of . . . for a few Wall Street financial gangsters," A. F. Whitney, president of the Brotherhood of Railroad Trainmen, said on June 6 during a broadcast debate with Robert E. Woodruff, president of the Erie, on the subject "Should the Government Own the Railroads?" The debate, presented on the "People's Platform" program, originated in the studios of WGAR, the Columbia Broadcasting System station in Cleveland, Ohio.

"As good American citizens," Mr. Woodruff said, "we must consider what is best for all of our 143,000,000 people. Here in this country railroad rates are lower, service is better and wages higher than on any foreign, government-owned line. The nationalization of railroads would be the opening wedge for the government to take over other industries, as has been done in all other countries. And such socialism always leads to dictatorship and slavery for the people. We had one sad experience with government control during World War I. Service was rotten, rates went up 80 per cent, but still the government paid out the taxpayers' money—$2,000,000 a day. In World War II, under private, competitive management, service was good, there was no increase in rates during the war, and the railroads paid the government $3,000,000 a day in taxes. The difference is at least $5,000,000 a day for the taxpayers. Cut that down and that's $12.76 for each man, woman and child in this country, or $46 per family. Is it any wonder then that we want nothing to do with government ownership?"

"Overcapitalized," Says Whitney

Mr. Whitney said that "we have during the years reluctantly felt that the time was coming when the government should take over the railroads, due to the fact that railroads are overcapitalized, railroads are content to break down collective bargaining and every time there is a wage-rules movement on the American railroads they go on a sit-down strike and the government is obliged to take a hand in the matter. If the government's going to handle our difficulties, it might just as well take over the railroads and benefit by the profits." Asked at this point by Dwight Cooke, chairman of the debate, whether he felt the government should take over the railroads primarily to protect railroad labor, the union officer replied: "No. In fact, the public is interested in these labor difficulties, so is business. We're all interested in that. Labor and the public have been very much disturbed during the past few years because of the attitude of the American railroads in declining to handle their differences with their employees by collective bargaining. And, furthermore, the railroads are always crying about their inability to make money. They are overcapitalized, in our opinion—their capitalization is $28,000,000,000—and they can be bought on the market today at $15,500,000,000."

"Sabotage" in 1918, Says Whitney

"The experience in the first world war was not a happy one," Mr. Whitney continued, "because the government left the railroads in the hands of its then present operators. And I say, without fear of contradiction, that many of the operators undertook to sabotage government-ownership. They ran up the expense of the operation for the purpose of making government-ownership and control unpopular."

"I must disagree with that," Mr. Woodruff said, "because I was in the war. I was a general superintendent during the period and we were subjected to all manner of political rulings. We had no jurisdiction whatever over many things that came out of Washington. It was bureaucracy of the worst type, and it will always be under government regulations. Mr. McAdoo was in charge of the railroads and he was a politican, if I remember right. He was a crown prince, trying to be president of the United States. I must say that we were dominated entirely by political considerations at that time."

Following a brief summary by Mr. Cooke of the founding of the Interstate Commerce Commission and the promulgation of the Railway Labor Act, Mr. Whitney said "the facts are

GENERAL NEWS

Labor Groups Urge Retention of R. L. A.

Would continue present collective bargaining set-up

Retention of the Railway Labor Act as a means of conducting collective bargaining within the railroad industry was urged by two railroad labor representatives at hearings June 8 before a joint congressional committee on labor-management relations. The committee, of which Senator Ball, Republican of Minnesota, is chairman, has been holding hearings since May 24 in order to receive from both management and labor proposed amendments to the Labor-Management Relations Act (Taft-Hartley Act) of 1947. It especially invited testimony to show how the law's provisions regarding industry-wide bargaining and stoppages should be strengthened to meet strike threats in the railroad, coal and steel industries.

As reported in *Railway Age* of June 14, 1947, page 1229, employers, employees and labor-relations matters subject to the R.L.A. are generally excluded from the scope of the Taft-Hartley Act. The views of railroad labor were expressed at the June 8 session by A. E. Lyon, executive secretary, Railway Labor Executives' Association, and B. A. Whitney, director, educational and research bureau, Brotherhood of Railroad Trainmen. J. Carter Fort, vice-president and general counsel of the Association of American Railroads, was tentatively scheduled to appear before the committee on June 12.

"Unmatched Record"

According to Mr. Lyon, the R.L.A. has a record which cannot be approached by any other statute or in any other field of industry. "Only a few isolated strike situations have developed, on small individual roads, and in but one case has there been a national strike, and this lasted for only two days," he said, in reviewing the operations of the National Railroad Adjustment Board and the National Mediation Board since the establishment of the former in 1934. "We challenge any major industry, or any system of adjustment of labor disputes to match that record."

Mr. Lyon said that the R.L.A. establishes a "comprehensive system" for the settlement of labor disputes in the railroad industry. "We sincerely believe," he added, "that the . . . Act is the best example of the blending of public pressure and individual economic freedom that has yet been devised. . . The force of public pressure is brought to bear to induce settlement. That force is powerful and to date has proved effective. We see no reason why this well balanced and successful system should be disturbed."

Mr. Lyon expressed strong opposition to the enactment of S. 2619, sponsored by Senator Knowland, Republican of California, to repeal Section 212 of the Taft-Hartley Act. Section 212 exempts the railroad industry from those provisions [Title II] of the Taft-Hartley Act setting up a system of mediation and conciliation for industries affecting commerce and providing for the establishment of fact-finding boards to investigate the issues involved in disputes that threaten national emergencies, and providing for the postponement of any resulting work stoppage.

Would "Confuse" Situation

Enactment of the bill, he said, would result in "indescribable" duplication and confusion of jurisdiction between the N.M.B. and the Federal Mediation and Conciliation Service and would bring about chaos in every stage of the handling of a railway labor dispute. The bill can only be viewed as a "rash gesture" toward bringing into play in railway labor disputes the injunction provisions of Title II, he asserted, adding that the imposition of an injunctive remedy would be simply a "gratuitous insult" to the railroad workers and "an irritant calculated to generate unrest rather than to avoid it."

Mr. Lyon told the committee that he was concerned with the fact that so few of the "general national movements" of the past 10 years have been disposed of in conference or in mediation. "Arbitration or emergency board investigation is coming to be taken too much for granted," he said. "An inquiry that would reach and eliminate the causes of this development would be a major contribution, since nothing can be more clear than that issues settled at the conference table will never become national crises. . . . I am certain that the failure to arrive at settlements in the conference or mediation stage is not attributable to any lack of good will or good intention on either side of the table. . . . Rather I suspect the causes lie more deeply in maladjustments of the relationships between the railroad industry and the rest of our economy."

The R.L.E.A. officer also averred that there is a "popular misconception" that railroad employees are the "aristocracy of labor" with respect to the enjoyment of good wages and working conditions. In this connection, he cited, as an example of the various "glaring aspects" in which the position of railroad labor has seriously deterioriated in relation to other industrial workers, the view that railroad labor is the only "substantial group" of industrial workers which does not have a regular work week of 40 hours or less with premium pay for overtime.

According to Mr. Whitney, the R.L.A. has been "unusually successful" in maintaining peace in the railroad industry and in encouraging cooperation between labor and the carriers. One of the most important reasons why the act has been effective, he said, rests in the fact that its provisions were formed in the light of the "extensive experience" of the labor organizations and the railroads. The R.L.A., he said, was, in effect, a "joint code" of labor relations worked out between railroad labor and management and supported by them in Congress.

Mr. Whitney told the committee that the difficulties in the railroad industry in the past few years have "stemmed in the main" from economic conditions, rather than from any inadequacy in the R.L.A., and in this respect referred to increases in the cost of living. "Government seizure and injunctions do not meet the basic problem—the need for wages adequate to meet the steadily increasing cost of living and the need for safe and reasonable conditions of work," he went on. "Injunctions disrupt union-management cooperation and lend themselves to abuse and injustice."

Mr. Whitney held that, if the proposal to bring railroad labor under the Taft-Hartley Act is to take advantage of the 80-day injunction period, Congress should bear in mind that, under the R.L.A., both employers and employees are subject to limitations for a "much longer period" than that provided for in the Taft-Hartley Act. "For instance," he said, "the wage-rules movement which culminated in a strike in May, 1946, was inaugurated in 1944. Anyone who has had experience in dealing with the human relationships of industry knows that prolonging injustices aggravates rather than solves them. . . . The important thing to note about the R.L.A. is that every opportunity is afforded for amicable settlement by agreement or by voluntary action of the parties."

Mr. Whitney said he cannot see the need for imposing "needless restrictions and limitations" upon the freedom of contract and "democratic negotiation" in the railroad industry or in any other industry.

He said that for Congress to con-

sider placing labor under the anti-trust laws at the very same time that it has voted to take the "giant railroad monopoly" out from under the anti-trust laws is "persuasive proof" that those who oppose government regulations mean only to eliminate the regulations applicable to business which protect the people from exploitation by "powerful aggregations of capital" or "giant business monopolies."

In acknowledging the testimony presented by the labor spokesmen, Senator Ball stressed that it is the committee's sole purpose to formulate "general lines of approach" with respect to "possible revision" of the Taft-Hartley Act. At the same time, he held that, while the "right" of labor to strike is "implicit" under the procedure of collective bargaining and under the democratic form of government, strikes aimed against an entire industry, such as the railroads, have a serious effect upon the nation's economy.

Senator Ball also observed that the railroads, unlike most private industries, must first obtain approval from the Interstate Commerce Commission before increasing their rates and charges in order to meet such monetary obligations as the demands of labor. The committee chairman also expressed the view that, in his opinion, railroad labor was "better off" than government employees with respect to negotiating with their respective employers for higher wages and improvements in working conditions.

4 Months Net Income Totaled $100,000,000

Net railway operating income for the same period was $195,750,651

Class I railroads in the first four months of 1948 had an estimated net income, after interest and rentals, of $100,000,000, as compared with $131,000,00 in the corresponding period of 1947, according to the Bureau of Railway Economics of the Association of American Railroads. The four-month's net railway operating income, before interest and rentals, was $195,750,651, as compared with $235,703,475.

Estimated results for April showed a net income of $27,100,000, as compared with $35,600,000 in April, 1947, while the net railway operating income for the 1948 month was $53,104,072, as compared with $59,459,540 in April, 1947. In the 12 months ended with April, the rate of return averaged 3.24 per cent, as compared with 3.26 per cent for the 12 months ended with April, 1947.

Gross in the first four months amounted to $2,972,210,494, compared with $2,730,856,100 in the same period of 1947, an increase of 8.8 per cent.

CLASS I RAILROADS—UNITED STATES

	Month of April 1948	1947
Tot. op. rev...	$ 728,968,958	$ 690,334,954
Tot. op. ex. ..	585,625,470	543,564,328
Op. ratio—per cent ..	80.34	78.74
Taxes	75,356,189	72,741,743
Net ry. op. inc. (Earnings before charges)	53,104,072	59,459,540
Net inc. after chgs. (esti.).	27,100,000	35,600,000
	Four Months Ended April 30, 1948	
Tot. op. rev...	$2,972,210,494	$2,730,856,100
Tot. op. exp. ..	2,406,596,014	2,141,716,374
Op. ratio—per cent ..	80.97	78.43
Taxes	312,579,377	299,746,728
Net. ry. op. inc. (Earnings before charges)	195,750,651	235,703,475
Net inc. after chgs. (esti.).	100,000,000	131,000,000

Operating expenses amounted to $2,406,596,014, compared with $2,141,716,374, an increase of 12.4 per cent. Thirty-five Class I roads failed to earn interest and rentals in the four months, of which 16 were in the Eastern district, three in the Southern region and 16 in the Western district.

Bad Slump in East

Class I roads in the Eastern district in the four months had an estimated net income of $20,000,000, compared with a net income of $41,000,000 in the same period of 1947. For April, their estimated net income was $4,400,000, compared with $11,000,000 in April, 1947.

The same roads in the four months had a net railway operating income of $66,462,836, compared with $88,671,928 in the same period of 1947. Their net railway operating income in April amounted to $17,583,834, compared with $22,308,004 in April, 1947.

Gross in the Eastern district in the four months totaled $1,345,289,458, an increase of 7.4 per cent compared with the same period of 1947, while operating expenses totaled $1,124,497,209, an increase of 11 per cent.

Class I roads in the Southern region in the four months had an estimated net income of $27,000,000, compared with a net income of $25,000,000 in the same period of 1947. For April, they had an estimated net income of $5,500,000, compared with $6,400,000 in April, 1947.

The same roads in the four months had a net railway operating income of $42,999,857, compared with $39,716,585 in the same period of 1947. Their net railway operating income in April amounted to $9,107,064, compared with $8,463,547 in April, 1947.

Gross in the Southern region in the four months totaled $437,521,794, an increase of 8.4 per cent compared with the same period of 1947, while operating expenses totaled $339,690,887, an increase of 8.7 per cent.

Decrease in the West

Class I roads in the Western district in the four months had an estimated net income of $53,000,000, compared with $65,000,000 in the same period of 1947. For April, they had an estimated net income of $17,200,000, compared with a net income of $18,200,000 in April, 1947.

The same roads in the four months had a net railway operating income of $86,287,958, compared with $107,314,962 in the same period of 1947. Their net railway operating income in April amounted to $26,413,174, compared with $28,687,989 in April, 1947.

Gross in the Western district in the four months totaled $1,189,399,242, an increase of 10.7 per cent compared with the same period of 1947, while operating expenses totaled $942,407,918, an increase of 15.4 per cent.

Holdout Ops Seeking Congressional Probe

Take case to senators; government granted injunction

Leaders of the three hold-out operating unions, whose May 11 strike threat brought government control of the railroads under Secretary of the Army Royall, took their wage and rules dispute to Congress last week after Dr. John R. Steelman, assistant to President Truman, had failed in his latest effort to mediate the controversy. The union leaders involved are Alvanley Johnston, grand chief engineer of the Brotherhood of Locomotive Engineers, D. B. Robertson, president of the Brotherhood of Locomotive Firemen and Enginemen, and A. J. Glover, president of the Switchmen's Union of North America.

A statement they issued on June 4 said that they had on that day made a presentation of their case to "various senators." The presentation was a review of the controversy and a request for a congressional investigation of the handling of it by the Administration. Among the senators contacted was the chairman of the Senate committee on labor and public welfare, who told reporters that he would want to talk with management representatives before taking any action on the labor leaders' request. The senator added that it would be difficult to launch an investigation at this time, in view of the pressure of other work on Congress as it drives toward adjournment. Management sources said on June 9 that Senator Taft had not up to that time been in touch with them about the matter.

The dispute arose out of the refusal of the three union leaders to accept the report of the emergency board (see *Railway Age* of April 3, page 47) which recommended for their members some changes in working rules and the same 15½ cents per hour wage increase that was accepted by unions representing other employees. The latest media-

tory effort of Presidential Assistant Steelman broke down on June 2, when the union leaders left the White House announcing that no settlement basis satisfactory to them had been suggested and that they did not expect to return for further meetings (see *Railway Age* of June 5, page 71).

Meanwhile Justice T. Alan Goldsborough of the United States District Court for the District of Columbia was scheduled to hold a hearing June 10 on the government's proposal to convert the temporary restraining order, which it obtained to stay the strike, into a permanent injunction. The hearing, originally scheduled for May 19, was twice postponed, as was the expiration date of the restraining order.

Contentions of Counsel

As reported also in the June 5 issue, the union leaders had filed with Judge Goldsborough a motion to dismiss the government's complaint, the motion being based upon contentions, among others, that the suit was brought in the wrong district, because the defendants are not residents of the District of Columbia; and that anti-injunction provisions of the Norris-LaGuardia Act applied to the wage and rules dispute. The Department of Justice has filed an answer to the motion, citing on the venue matter what it regards as adequate legal authority for bringing the suit in the District of Columbia.

The Department of Justice's answer also dealt with the labor leaders' contention that an injunction was barred by the Norris-LaGuardia Act because that act exempts only disputes involving government employees, and the government "has not assumed the duties of an employer" with respect to the railroad employees. On that matter there was attached to the answer an affidavit wherein Secretary Royall denied ever having stated to Messrs. Johnston, Robertson and Glover that President Truman's seizure order did not authorize him to settle the wage and rules dispute. "Under the express language of the Executive Order," the affidavit added, "the actual fact is to the direct contrary, of which he has at all times been aware. . . "

The affidavit went on to explain that when the secretary told Messrs. Johnston, Robertson and Glover that "it was not his function to enter into negotiations," he was referring "to the informal agreement in effect between himself and Dr. John R. Steelman, assistant to the President, under which upon instructions from the President, adjustment of the existing differences between the seized carriers and the defendants was left to Dr. Steelman." It is next asserted that this policy "is not in any respect predicated on a lack of authority" on the part of the President or the secretary.

"On the contrary," the affidavit continued, "the policy was deliberately adopted in recognition that the national interest requires that every possible effort be made to obtain a solution which will permit the speedy surrender of government possession, control and operation without disruption of service. Without the concurrence of both the carriers and the defendants, this would be impossible. Conversely, under the express language of Section 6 of the Executive Order, the President and the Secretary of the Army have full power and authority over the application during the period of government possession, control and operation of any agreement that may be made. This effectively demonstrates the completeness of federal control."

As to the labor leaders' contention that the 1916 act under which the President seized the railroads "was not enacted because of labor disturbances, but solely to permit the government to utilize the railroads for war needs in preference to civilian purposes," the Department of Justice pointed out that, "whatever the motive of the framers," the law placed no condition or limitation on the power it gave the President to seize the carriers "in time of war." "In any event," the answer added, "it would be a strange law indeed which would permit a seizure of the railroads where troops were being moved in box cars when day coaches or Pullman cars were available but would not permit their seizure when troops and military supplies were not being moved at all because of labor difficulties."

ENJOINS STRIKE BY OPS

Justice T. Alan Goldsborough of the United States District Court for the District of Columbia on June 10 granted the federal government's petition for a temporary injunction to restrain the three holdout operating unions and their leaders from staging a strike against the rails. The injunction replaced the temporary restraining order which expired June 11, after having been in effect since the evening of May 10, when it was issued to stay the strike set for the following morning. The injunction will remain in effect until the court passes upon the government's complaint which Justice Goldsborough said would be assigned for hearing after the labor leaders have filed their answer. Their counsel said that would be within five days from June 10.

Southern's Magazine Honored

The Southern's monthly magazine for employees, Ties, has won an honorable mention award in the 1948 International Industrial Publication contest sponsored by the International Council of Industrial Editors. The award was made "in recognition of exceptional accomplishment in achievement of purpose, excellence of editorial content, and effectiveness of design."

Passes Retirement and Jobless Tax Bill

House approves measure with labor-management compromise

Adhering to the plan to give expedited handling to the bill embodying the labor-management compromise agreement on amendments to the Railroad Retirement and Railroad Unemployment Insurance Acts, the House on June 8 suspended its parliamentary rules and passed the measure by a roll-call vote of 381 to 0, with 49 members not voting. The bill, H.R.6766, would amend the Retirement Act by increasing benefits thereunder by 20 per cent, including annuities already in effect, and restoring the lump-sum, death-benefit provisions which were eliminated by the Crosser Act of 1946; it would amend the Unemployment Insurance Act by placing the taxes collected thereunder on a sliding-scale basis which would reduce the levy (paid entirely by the railroads) from 3 per cent to ½ per cent of taxable payroll, the cut to apply retroactively to January 1.

The bill was introduced by the chairman of the House committee on interstate and foreign commerce, Representative Wolverton, Republican of New Jersey; and it was reported favorably to the House by that committee on June 2, the same day on which a public hearing had been held. As noted in the *Railway Age* of June 5, page 75, that hearing brought out the agreement on the amendments which had been reached by the Association of American Railroads and the Railway Labor Excutives Association.

The committee's report said that they were also supported by the Brotherhood of Locomotive Engineers and Brotherhood of Railroad Trainmen, the leaders of which are not members of R.L.E.A. The National Railroad Pension Forum, Inc., also claimed some credit. It issued a June 5 statement calling attention to the House's plan to consider the bill on the 8th, and added that 'the proposed legislation "is a result of the activities of the Forum," which was described as a "voluntary organization of union and non-union rail workers who are opposed to their present inadequate pension law."

Meanwhile, the proposed legislation was also being given preferred handling on the Senate side of the capitol. A companion bill, S.2782, has been introduced there by Senator Taft of Ohio for himself and Senator Ives of New York, both Republicans. Senator Taft is chairman of the Senate committee on labor and public welfare which was scheduled to report the legislation favorably to the Senate during the latter part of this week.

The siding-scale tax plan, which the legislation would subsitute for the

Unemployment Insurance Act's flat 3 per cent levy, would be graduated on the basis of the balance in the Railroad Unemployment Insurance Accout, which now amounts to more tha $900,000,000. The rate would remain at ½ per cent as long as the balance was $450,000,000 or more. If the balance fell below that figure, the tax would be increased by graduated steps of ½ per cent for each $50,000,000 drop until the 3 per cent rate was restored when the fund fell below $250,000,000.

The House's unanimous action on the Wolverton bill was preceded by a brief period of discussion during which several members took advantage of the opportunity to state their position in favor of the legislation. Another pending bill introduced by Mr. Wolverton is H.R.6799, which would amend the Retirement Act to increase salaries of members of the Railroad Retirement Board from $10,000 a year to $15,000.

Southern and Lehigh Valley Make Schedule Changes

The Southern has announced a new, faster schedule for the "Skyland Special" between Jacksonville, Fla., and Asheville, N. C. Since the change, the train departs from Jacksonville at 9:05 p.m., the same as the previous schedule, but arrives in Asheville at 11:30 a.m. instead of 12:20 p.m., a saving of 50 minutes. Southbound, the train now departs from Ashville at 4:45 p.m. instead of 3:30 p.m. and arrives in Jacksonville at 7:30 a.m., an improvement in schedule of 1 hr. and 5 min.

A faster schedule on the Lehigh Valley's "Asa Packer" went into effect on May 26. Train 25, which leaves Pennsylvania Station, New York, at 6:50 a.m., now arrives in Wilkes-Barre, Pa., at 11:35 a.m. and in Pittston, Pa., at 11:59 a.m., a 23-min, saving. Eastward, there is a 10-min. reduction in running time from Pittston to New York.

J. W. Barriger Addresses A.S.M.E. Meeting at Milwaukee

During the semi-annual meeting of the American Society of Mechanical Engineers, May 30 to June 5, at Milwaukee, Wis., the Railroad division of the society participated in joint sessions with the Machine Design and Gas Turbine divisions on June 1 and conducted an all-day meeting on June 3, devoted to various aspects of railway passenger car design and including an address on "Passenger Potentials," by J. W. Barriger, president of the Chicago, Indianapolis & Louisville.

Mr. Barriger stressed the contribution of engineers in developing modern design features; outlined some of the problems in connection with satisfactory, self-sustaining passenger transportation; and explained the difficulty in determining actual passenger service costs under present I.C.C. accounting rules. He said that, in view of an ever-increasing population and urge to be on the move, it is inconceivable that the genius of America, which has adapted mass production to almost everything used in important quantities in this country, will fail to make railroads commercially successful mass producers of passenger transportation.

Both technical sessions of the Railroad division on June 3, presided over by Chairman P. W. Kiefer, chief engineer motive power and rolling stock of the New York Central, were attended by approximately 130 representative railway and supply company engineers. At the morning session, papers were presented on "Thermal Environment of Railroad Passenger Cars," by K. A. Browne, research consultant, and S. G. Guins, project engineer, Chesapeake & Ohio, Cleveland, Ohio; and on "Visual Passenger Comfort," by Brooks Stevens, industrial designer, Brooks Stevens Associates, Milwaukee, Wis.

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"The experience in the first world war was not a happy one," Mr. Whitney continued, "because the government left the railroads in the hands of its then present operators. And I say, without fear of contradiction, that many of the operators undertook to sabotage government-ownership. They ran up the expense of the operation for the purpose of making government-ownership and control unpopular."

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Following a brief summary by Mr. Cooke of the founding of the Interstate Commerce Commission and the promulgation of the Railway Labor Act, Mr. Whitney said "the facts are

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"Banker Control," Says Whitney

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CONSTRUCTION

Canadian Pacific.—The following projects have been undertaken recently in the Prairie and Pacific regions of this road: Construct new local freight shed and replace 400-ton timber coaling plant with similar plant of concrete construction, at Fort Williams, Ont.; install elevated control tower with two-way communication system in yard at Winnipeg, Man., with the fabrication and erection of the steel tower being handled by the Dominion Bridge Company of Winnipeg; replace 10,000 ft. of 4-in. cast-iron pipe line with 6-in. cast-iron pipe, at Milestone, Sask.; replace Bridge 6.4, Dunelm subdivision, Wyatt, Sask., with a reinforced box culvert and fill, the labor for which is being provided by J. Rollock of Prince Albert, Sask.; replace 11,400 ft. of 6-in. wood pipe line with 6-in. cast-iron pipe, at Wynyard, Sask.; replace pile trestle bridge, consisting of 27 spans and measuring 405 ft. in length, with 10-ft reinforced concrete culvert and fill, at mile 1.8, Acme subdivision, Bargrave, Alta.; replace with mechanical stokers the turbine grates in four stationary boilers of enginehouse at Lethbridge, Alta.; construct a 70-ft. steel-and-brick addition to express building at Calgary, Alta.; install additional electrical facilities for servicing mechanically-activated air-conditioned cars and for charging batteries on set-out passenger equipment, at Lake Louise, Alta., and Banff, with contracts awarded to the Poole Construction Company of Calgary for the erection of generator buildings; build extension to station facilities at Edmonton, Alta., a contract for which has been awarded to J. C. Haddow of Edmonton; construct six-track storage yard of 150-car capacity, at Marpole, B.C.; replace existing power plant with modern unit, at Vancouver, B.C.; construct addition to freight shed, also at Vancouver, a contract for which has been awarded to the Dominion Construction Company of that city; construct line diversion to avoid tunnel, at mile 48, Cranbrook subdivision, Loop, B.C.; with 4-in. test holes being drilled by the Pacific Diamond Drilling Company of Vancouver; build new station and freight shed at Creston, B.C.; replace 50-ton timber coaling plant with a 50-ton Plant-Redler steel coaling plant, at Yahk, B.C.; construct 60-ft. reinforced concrete tunnel portal at west end of tunnel located at mile 20.3, Coquihalla subdivision, Coquihalla, B.C.; the work being performed by E. Rogers of Penticton, B.C.; rebuild timber bridge at mile 42.5, Coquihalla subdivision, Jessica, B.C.; rebuild timber bridge at mile 12.7, Copper Mountain subdivision, Copper Mountain, B.C.; replace pile trestle with two 48-in. pipe culverts and fill, at McCulloch, B.C.; erect new station of modern design at Port Alberni, B.C.; and replace seven bents of 15-bent frame trestle 18-ft. high supported on rock-filled crib, with 100-ft. steel span on concrete abutments. The road will replace four timber Howe truss bridges at Princeton, B.C. Bridges 71.1 and 77.8 will be replaced by steel structures and bridges 75.5 and 75.7 are to be eliminated by a diversion line 0.8 miles long involving the construction of a 500-ft. concrete-lined tunnel. The Highway Construction Company will do the grading and construct the tunnel. The C. P. will also divert a creek to eliminate four pile trestle bridges at miles 93.8, 94.2, 94.5 and 94.9, on the Princeton subdivision.

Chesapeake & Ohio.—This road has awarded the following contracts, the estimated costs of which are shown in parentheses: To the Hughes-Foulkrod Company, Philadelphia, Pa., for extending a roundhouse 15 ft. and installing 5 electric drop pit tables and an additional engine hoist at Russell, Ky. ($220,700); to B. F. Parrot & Co., Roanoke, Va., for constructing offices for the central reservation bureau at Huntington, W. Va. ($87,100); to the Enterprise Electric Company, Newport News, Va., for a transformer substation and connecting power lines at Newport News ($88,000); to the Echols Brothers Company, Staunton, Va., for rearranging and extending yard tracks at Danville, W. Va. ($701,000); to Winston Ford, Prestonburg, Ky., for constructing passing tracks at Pauley, Ky. ($121,300); to the Forbes Construction Company, Huntington, and the William A. Smith Contracting Company, Kansas City, Kan., for, respectively, the grading work and the track work involved in the construction of tracks to serve a coal mine development at Argonne, W. Va. ($408,320); and to the Pittsburgh Des Moines Steel Company, Pittsburgh, Pa., for replacing a wood water tank with a steel tank at Huntington ($25,000).

Bids will be requested for the following authorized projects, the probable costs of which are shown in parentheses: Replacing abutments of a bridge at Poplar Springs, Va. ($35,300); replacing a trestle with fill retained by a concrete wall at Richmond, Va. ($22,200); replacing a bridge with an 84-in. culvert pipe at Lee, Va. ($39,600); installing drainage and stabilizing turntable tracks at Clifton Forge, Va. ($43,220); encasing and enlarging abutments and replacing the east pier of a bridge at Dunn, Va. ($29,800); replacing the west abutment of a bridge at Covington, Va. ($90,500); replacing a 115-ft. turntable with a 130-ft. turntable at Hinton, W. Va. ($154,400); rebuilding the west abutment of a bridge at Guyandot, W. Va. ($132,000); replacing wood platforms and walkways with concrete structures at Huntington ($40,400); replacing portion of bridge at Rock Creek, W. Va., with steel spans and fill balance ($53,000); replacing bridge with steel spans on concrete abutments and piers at Dartmont, W. Va. ($42,600), and at Bim ($21,200); replacing bridge with steel spans on concrete abutments at Ethel, W. Va. ($24,800), at Benadum, Ind. ($23,970), and at Janney ($24,800); facilities for handling storage coal at Russell ($57,350); repairing and extending a stone arch culvert at Maysville, Ky. ($33,400); raising an overhead highway bridge at Robbins, Ohio ($48,000); enlarging a wing and repairing other masonry at Gregg, Ohio ($27,700); raising a bridge and replacing a concrete span and brick pavement at Fite, Ohio ($38,400); raising a bridge and approach at Fite ($26,200); replacing an engine coaler and installing a cinder conveyor at Marion, Ohio ($44,500); encasing and enlarging the abutments and wingwalls of a bridge at Cheviot, Ohio ($79,400); replacing portion of bridge with steel spans at Miami, Ohio ($151,120); replacing a bridge at Richmond, Ind. ($138,800); and replacing two steel spans of a bridge at Beardstown, Ind., with heavier steel ($25,900).

The following authorized projects, the probable costs of which are shown in parentheses, will be undertaken by the road's own forces: Installing track circuits and signals in yard at Clifton Forge ($26,775); adding fire protection for engine terminal at Hinton ($24,000); rearranging crossovers and turnouts at Stone Cliff, W. Va. ($27,175); installing C.TC. signals from FD cabin to Monitor Junction at Logan, W. Va. ($141,400); installing remote control of crossover and signals at Louisa, Ky. ($24,800); constructing an additional 55-ft. span on bridge at Taylor, Ky. ($34,700); strengthening wingwall and repairing masonry at Oneonta, Ky. ($98,600); and extending a bridge with ballast deck spans at NJ Cabin, Ky. ($95,210).

Louisville & Nashville.—This road has authorized the following projects the estimated costs of which are shown in parentheses: (1) Extend passing tracks on the Eastern Kentucky division, at Oakdale, Gentry, and Haddix ($26,700). The work will be performed by railroad forces. (2) Construct mine tracks for the Standard Ore & Alloy

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functions would not be carried on as efficiently or rapidly and that more records would have to be kept. Such an argument, the committee said, appears to be not so much a justification for the continuation of the O.D.T. as an indictment of the efficiency of the commission.

The report also observed that Colonel J. Monroe Johnson, director of the O.D.T., when questioned by the committee as to the possible termination of that agency, replied: "'The end is this: When we can see a program of cars being built to take care of the situation and when we have no emergency, the Office of Defense Transportation can be closed.'"

P.R.R. Used Over 350 Cars To Take Shriners to Convention

The Pennsylvania has announced it operated 27 special trains from various parts of the nation to bring more than 10,000 Shriners to Atlantic City, N. J., for their 1948 convention which began on June 6 and extended through June 10. More than 350 sleeping, parlor, baggage, dining and equipment cars and coaches were involved in the operation. Sleeping cars were parked at Atlantic City for use as dormitories during the convention.

Railroads Being Undermined by Government Policies, Says Young

Deep-rooted government policies are rapidly undermining the effectiveness of American railroads even for peacetime, to say nothing of a possible war, Robert R. Young, chairman of the Chesapeake & Ohio, said in Cincinnati, Ohio, on June 9 in an address before the thirteenth annual convention of the American Retail Coal Association. "In the last depression," he added, "the rails defaulted on their bond interest and busted most of our banks. In the next depression, starting from their government-forced precarious foundation, it is doubtful if they can meet their payrolls and fuel bills."

Pointing out that railroads "have virtually stopped buying steam locomotives," the C. & O. officer asked "what are we going to do for motive power, what are we going to do for coal cars, when in the next emergency, because of our vanishing oil supply, all the Diesels that have replaced our steam locomotives find that our jet planes require all their fuel?"

Last year, Mr. Young went on, "when the railroads rendered the greatest service in their history, they were held down to a return of 2.7 per cent on investment, and this year has started out even worse than last year. . . . The most important defense industry in the richest nation in the world is deprived of a living wage, beggared by the government, is prevented from paying a decent return to $20,000,000,000 of honest capital saved by small shareholders. Rate-making authorities under the law are instructed to see that the railroads earn a fair rate of return. We believe a fair rate of return to be an average of at least 6 per cent, and in boom years like last year at least 10 per cent. Stripped of earnings, how can our railroads be expected to buy equipment, expand terminals, construct secondary reserve routes to be available for emergency?"

Freight Car Loadings

Loadings of revenue freight in the week ended June 5, which included the holiday on May 30, totaled 821,213 cars, the Association of American Railroads announced on June 10. This was 83,635 cars, or 9.2 per cent, below the preceding week, 79,534 cars, or 8.8 per cent, under the corresponding week last year, and 8,915 cars, or 1.1 per cent, less than in the equivalent 1946 week.

Loading of revenue freight for the week ended May 29 totaled 904,848 cars, and the summary for that week as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loadings
For the Week Ended Saturday, May 29

District	1948	1947	1946
Eastern ...	161,210	146,116	118,055
Allegheny .	193,604	177,088	109,681
Pocahontas .	76,574	72,174	29,653
Southern ..	139,811	130,778	112,691
Northwestern	136,678	126,313	95,222
Cent. West.	131,293	116,805	105,167
Southwest. .	65,678	60.931	56,416
Tot. West. Dist.	333,649	304,049	256,805
Tot. All Rds.	904,848	830,205	626,885
Commodities:			
Gr. & gr. prods. ...	43,087	39,684	39,303
Livestock ..	11,748	11,008	13,445
Coal	203,052	175,858	61,791
Coke	14,977	13,707	4,748
For. prods. .	46,708	43,132	41,810
Ore	84,047	80,560	37,400
Merch'd l.c.l.	108,109	105,171	107,515
Misc.	393,120	361,085	320,873
May 29 ...	904,848	830,205	626,885
May 22 ...	879,158	890,605	571,473
May 15 ...	847,403	888,208	688,210
May 8 ...	880,617	884,242	684,942
May 1 ...	891,638	882,574	671,311
Cumulative total, 22 weeks	17,243,683	18,126,121	15,579,849

Additional General News appears on page 83.

OVERSEAS

Argentina.—The Argentine government has approved the construction of a railroad between Puerto Santa Cruz, on the Atlantic coast, inland to the Rio Turbio coal mines, in the territory of Santa Cruz, according to a recent issue of Foreign Commerce Weekly. The cost of this line has been provisionally fixed at 100,000,000 pesos. Also, the government has approved the General Administration of State Railways' estimate of 37,642,486 pesos for the construction of a railroad line between Suncho Corral, in the territory of Santiago del Estero, northward to Tolloche, territory of Salta. In addition, the expenditure of 100,000,000 pesos to extend the subway system in the city of Buenos Aires has been authorized.

SUPPLY TRADE

Charles C. Rieth has been appointed eastern sales manager of the **Magnus Metal Corporation.**

Jim Rogers has been appointed southwestern sales representative for **Samuel Moore & Co.**, with headquarters at 1520 West 11th avenue, Corsicana, Tex.

The reorganization of the Aviometer Corporation as the Aviometer division of the **Roanwell Corporation** through purchase of the assets of the former company has been announced by **James E. Rountree** and **Richard W. Howell.** The officers of Roanwell are: Mr. Rountree, president and treasurer; Mr. Howell, executive vice-president; and **Sterling G. Sears,** former president of Aviometer, vice-president and technical adviser.

The **Robert J. Wylie Company,** St. Paul, Minn., whose appointment as railroad distributor for the **Koehring Company** of Milwaukee, Wis., was announced in the *Railway Age* of May 29, will cover railroads in Minnesota and upper Michigan and also will represent Koehring subsidiary companies, the Kwik-Mix

Robert J. Wylie

Company of Port Washington, Wis., and the C. S. Johnson Company of Champaign, Ill. Mr. Wylie organized his railroad and equipment business in 1939, before which he was associated with the Great Northern (for more than 12 years) and the James C. Willson Company.

Five new sales representatives covering western Texas, New Mexico and Arizona; Iowa and eastern Nebraska;

South Carolina and western North Carolina; eastern Tennessee; and the lower peninsula territory in Michigan; have been appointed by **Thomas C. Wilson, Inc.** The new representatives are: **Steel & Engineering Products,** El Paso, Texas; **Interstate Machinery Supply Co.,** Omaha, Neb.; **Plibrico Sales & Service Co.,** Charlotte, N. C.; **Leinert Engineering Company,** Knoxville, Tenn.; and the **Kiger Supply Company,** Detroit, Mich.

R. V. Schageman has been appointed Chicago district sales manager for the **McConway & Torley Corp.** to succeed the late J. J. Hughes

George M. Lebedeff, formerly chief engineer for Heintz & Kaufman, Ltd., has joined the **Lenkurt Electric Company** as a carrier engineer, it was announced this week.

The **Curtiss Johnson Company,** Houston, Tex., and **Woodward Wight & Co.,** New Orleans, La., have been appointed sales representatives for the **Dampney Company of America.**

Robert H. Wellington has been appointed sales representative of the **Griffin Wheel Company,** with headquarters at Boston, Mass.

Robert Aldag, Jr., sales engineer for **Fairbanks, Morse & Co.,** at Chicago, has been promoted to manager of the sales engineering department, Railroad division, at that point.

The **Link-Belt Company** has announced plans for the construction of a new plant in Houston, Tex. The new building will occupy a 10-acre plot and contain approximately 45,000 sq. ft. of floor space.

OBITUARY

H. A. Morrison, retired vice-president of the Simmons-Boardman Publishing Corporation, at Chicago, died there on May 9, following a long illness as reported in *Railway Age* of May 15. Mr. Morrison, who began his service with Simmons-Boardman as a sales representative at Chicago in 1925, was born on December 21, 1892, at Indianapolis, Ind. He studied electrical engineering at Purdue University, and in 1912 he entered the traffic department of the Pennsylvania at Indianapolis, where he remained until 1915, when he went with the Chicago, Rock Island & Pacific as a special apprentice in the electrical department at Silvis, Ill. In June, 1918, he was transferred to the office of the general mechanical superintendent at Chicago, where he remained until September 1, 1919, when he resigned to become sales engineer for the United States Light & Heat Corp., Chicago, being advanced to the position of district manager of the railway sales department on May 1, 1924. On May 1, 1925, Mr. Morrison resigned from this position to enter the service of Simmons-Boardman. On July 1, 1930, he was appointed business manager of Railway Signaling, a Simmons-Boardman publication, and on August 2, 1932, he was promoted to western manager in charge of sales in the western territory for all transportation publications of the company, at the same time continuing as business manager of Railway Signaling. He was elected

H. A. Morrison

vice-president of the company in November, 1937, retaining the responsibilities of both of the aforementioned positions until his retirement.

Mr. Morrison served as president of the Railway Electric Supply Manufacturers' Association from 1942 to 1946, inclusive. He was elected a director of the Track Supply Association in 1942.

Mrs. Virginia P. Fiske, auditor of the Standard Car Truck Company, at Chicago, died at her home in that city on May 28, following a lengthy illness.

EQUIPMENT AND SUPPLIES

FREIGHT CARS

9,192 Freight Cars Built Last Month

Freight cars produced last month for domestic use totaled 9,192, including 2,541 built in railroad shops, compared with April production of 9,052, including 2,326 built in railroad shops, the American Railway Car Institute announced this week. New freight cars ordered last month for domestic use, the institute said, amounted to 2,222, which included 361 ordered from railroad shops, compared with April orders for 18,252, including 6,262 ordered from railroad shops. The backlog of freight cars on order and undelivered on June 1 was 127,689, including 37,988 on order from railroad shops.

LOCOMOTIVES

The **Manistee & Northeastern,** a subsidiary of the Chesapeake & Ohio, recently accepted delivery from the Electro-Motive Division of the General Motors Corporation of two 1,000-hp. Diesel-electric switching locomotives.

The **Indian Government Railways** have placed orders for 100 steam locomotives of the 4-6-2 type at an approximate cost of $12,500,000. Sixty of the locomotives will be built by the Montreal Locomotive Works (delivery of this lot is scheduled to begin next February), and 40 will be constructed by the Canadian Locomotive Company.

The **Southern Pacific** is inquiring for 95 Diesel-electric locomotives which will cost approximately $25,000,000, it was announced this week by A. T. Mercier, president. Included in the new equipment will be 30 6,000-hp. freight locomotives and 65 switching locomotives ranging in horsepower from 600 to 1,500. The latter group will include 15 1,500-hp. road-switching locomotives. Delivery is expected to begin in the second quarter of 1949.

CAR SERVICE

I.C.C. Service Order No. 816, effective from June 2 until July 1 unless otherwise modified, provides for suspension of demurrage charges on freight and express cars in the Northwest which are held up because of flood conditions.

I.C.C. Service Order No. 68, which relates to minimum weights, trailer cars, etc., has been modified by Amendment No. 18 which suspends its application on flat cars loaded with trailers shipped to points in Oregon and Washington and between points in those states. The amendment became effective June 4 and is scheduled to expire June 30.

I.C.C. Agent Homer C. King has issued, under Service Order No. 562, King's I.C.C. Order No. 32 which directs railroads affected by floods in Oregon, Washington and California to reroute traffic as necessary to expedite its movement and prevent congestion, subject to the concurrence of receiving roads. The order became effective June 4 and is scheduled to expire June 30.

I.C.C. Service Order 813-A, effective June 4, suspended Service Order No. 813, which embargoed plants of the Goldberg Building Material & Supply Corp. and the Goldberg Material Building Corporation at Troy, N. Y., Green Island, Albany, Cohoes, and Waterford. The suspension order is effective, unless otherwise modified, until September 9, the expiration date of the embargo order.

I.C.C. Service Order No. 129, which suspends the operation of Section 2,

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I.C.C. Service Order No. 646, which provides that vegetable shipments from the Salinas-Watsonville district of California may be initially iced at the carrier's option at Roseville, Cal., San Jose or Stockton, has been modified by Amendment No. 4, which set back the expiration date from June 30 until December 5.

CONSTRUCTION

Canadian Pacific.—The following projects have been undertaken recently in the Prairie and Pacific regions of this road: Construct new local freight shed and replace 400-ton timber coaling plant with similar plant of concrete construction, at Fort Williams, Ont.; install elevated control tower with two-way communication system in yard at Winnipeg, Man., with the fabrication and erection of the steel tower being handled by the Dominion Bridge Company of Winnipeg; replace 10,000 ft. of 4-in. cast-iron pipe line with 6-in. cast-iron pipe, at Milestone, Sask.; replace Bridge 6.4, Dunelm subdivision, Wyatt, Sask., with a reinforced box culvert and fill, the labor for which is being provided by J. Rollock of Prince Albert, Sask.; replace 11,400 ft. of 6-in. wood pipe line with 6-in. cast-iron pipe, at Wynyard, Sask.; replace pile trestle bridge, consisting of 27 spans and measuring 405 ft. in length, with 10-ft reinforced concrete culvert and fill, at mile 1.8, Acme subdivision, Bargrave, Alta.; replace with mechanical stokers the turbine grates in four stationary boilers of enginehouse at Lethbridge, Alta.; construct a 70-ft. steel-and-brick addition to express building at Calgary, Alta.; install additional electrical facilities for servicing mechanically-activated air-conditioned cars and for charging batteries on set-out passenger equipment, at Lake Louise, Alta., and Banff, with contracts awarded to the Poole Construction Company of Calgary for the erection of generator buildings; build extension to station facilities at Edmonton, Alta., a contract for which has been awarded to J. C. Haddow of Edmonton; construct six-track storage yard of 150-car capacity, at Marpole, B.C.; replace existing power plant with modern unit, at Vançouver, B.C.; construct addition to freight shed, also at Vancouver, a contract for which has been awarded to the Dominion Construction Company of that city; construct line diversion to avoid tunnel, at mile 48, Cranbrook subdivision, Loop, B.C.; with 4-in. test holes being drilled by the Pacific Diamond Drilling Company of Vancouver; build new station and freight shed at Creston, B.C.; replace 50-ton timber coaling plant with a 50-ton Plant-Redler steel coaling plant, at Yahk, B.C.; construct 60-ft. reinforced concrete tunnel portal at west end of tunnel located at mile 20.3, Coquihalla subdivision, Coquihalla, B.C.; the work being performed by E. Rogers of Penticton, B.C.; rebuild timber bridge at mile 42.5, Coquihalla subdivision, Jessica, B.C.; rebuild timber bridge at mile 12.7, Copper Mountain subdivision, Copper Mountain, B.C.; replace pile trestle with two 48-in. pipe culverts and fill, at McCulloch, B.C.; erect new station of modern design at Port Alberni, B.C.; and replace seven bents of 15-bent frame trestle 18-ft. high supported on rock-filled crib, with 100-ft. steel span on concrete abutments. The road will replace four timber Howe truss bridges at Princeton, B.C. Bridges 71.1 and 77.8 will be replaced by steel structures and bridges 75.5 and 75.7 are to be eliminated by a diversion line 0.8 miles long involving the construction of a 500-ft. concrete-lined tunnel. The Highway Construction Company will do the grading and construct the tunnel. The C. P. will also divert a creek to eliminate four pile trestle bridges at miles 93.8, 94.2, 94.5 and 94.9, on the Princeton subdivision.

Chesapeake & Ohio.—This road has awarded the following contracts, the estimated costs of which are shown in parentheses: To the Hughes-Foulkrod Company, Philadelphia, Pa., for extending a roundhouse 15 ft. and installing 5 electric drop pit tables and an additional engine hoist at Russell, Ky. ($220,700); to B. F. Parrot & Co., Roanoke, Va., for constructing offices for the central reservation bureau at Huntington, W. Va. ($87,100); to the Enterprise Electric Company, Newport News, Va., for a transformer substation and connecting power lines at Newport News ($88,000); to the Echols Brothers Company, Staunton, Va., for rearranging and extending yard tracks at Danville, W. Va. ($701,000); to Winston Ford, Prestonburg, Ky., for constructing passing tracks at Pauley, Ky. ($121,300); to the Forbes Construction Company, Huntington, and the William A. Smith Contracting Company, Kansas City, Kan., for, respectively, the grading work and the track work involved in the construction of tracks to serve a coal mine development at Argonne, W. Va. ($408,320); and to the Pittsburgh Des Moines Steel Company, Pittsburgh, Pa., for replacing a wood water tank with a steel tank at Huntington ($25,000).

Bids will be requested for the following authorized projects, the probable costs of which are shown in parentheses: Replacing abutments of a bridge at Poplar Springs, Va. ($35,300); replacing a trestle with fill retained by a concrete wall at Richmond, Va. ($22,200); replacing a bridge with an 84-in. culvert pipe at Lee, Va. ($39,600); installing drainage and stabilizing turntable tracks at Clifton Forge, Va. ($43,220); encasing and enlarging abutments and replacing the east pier of a bridge at Dunn, Va. ($29,800); replacing the west abutment of a bridge at Covington, Va. ($90,500); replacing a 115-ft. turntable with a 130-ft. turntable at Hinton, W. Va. ($154,400); rebuilding the west abutment of a bridge at Guyandot, W. Va. ($132,000); replacing wood platforms and walkways with concrete structures at Huntington ($40,400); replacing portion of bridge at Rock Creek, W. Va., with steel spans and fill balance ($53,000); replacing bridge with steel spans on concrete abutments and piers at Dartmont, W. Va. ($42,600), and at Bim ($21,200); replacing bridge with steel spans on concrete abutments at Ethel, W. Va. ($24,800), at Benadum, Ind. ($23,970), and at Janney ($24,800); facilities for handling storage coal at Russell ($57,350); repairing and extending a stone arch culvert at Maysville, Ky. ($33,400); raising an overhead highway bridge at Robbins, Ohio ($48,000); enlarging a wing and repairing other masonry at Gregg, Ohio ($27,700); raising a bridge and replacing a concrete span and brick pavement at Fite, Ohio ($38,400); raising a bridge and approach at Fite ($26,200); replacing an engine coaler and installing a cinder conveyor at Marion, Ohio ($44,500); encasing and enlarging the abutments and wingwalls of a bridge at Cheviot, Ohio ($79,400); replacing portion of bridge with steel spans at Miami, Ohio ($151,120); replacing a bridge at Richmond, Ind. ($138,800); and replacing two steel spans of a bridge at Beardstown, Ind., with heavier steel ($25,900).

The following authorized projects, the probable costs of which are shown in parentheses, will be undertaken by the road's own forces: Installing track circuits and signals in yard at Clifton Forge ($26,775); adding fire protection for engine terminal at Hinton ($24,000); rearranging crossovers and turnouts at Stone Cliff, W. Va. ($27,175); installing C.TC. signals from FD cabin to Monitor Junction at Logan, W. Va. ($141,400); installing remote control of crossover and signals at Louisa, Ky. ($24,800); constructing an additional 55-ft. span on bridge at Taylor, Ky. ($34,700); strengthening wingwall and repairing masonry at Oneonta, Ky. ($98,600); and extending a bridge with ballast deck spans at NJ Cabin, Ky. ($95,210).

Louisville & Nashville.—This road has authorized the following projects the estimated costs of which are shown in parentheses: (1) Extend passing tracks on the Eastern Kentucky division, at Oakdale, Gentry, and Haddix ($26,700). The work will be performed by railroad forces. (2) Construct mine tracks for the Standard Ore & Alloy

Corp., at Fern Lake, Ky., near Middlesboro ($23,944). Standard Ore will furnish the grading and drainage and pay for the track work, which will be completed by L. & N. forces. (3) Construct mine tracks for the Mary Gail Coal Company, near Hibbard, Ky., on the Horse Creek branch of the Cumberland Valley division (57,800). Grading and drainage will be provided by the coal company and the track will be constructed by the railroad's forces at the expense of the coal company. (4) Construct mine tracks for the Horse Creek Coal Company, near Hibbard, Ky., Horse Creek branch, Cumberland Valley division ($23,400). The grading and drainage will be provided by the coal company and the track work will be performed by L. & N. forces at the expense of the coal company. (5) Convert two end stalls at the roundhouse in Ravenna, Ky., into Diesel-handling facilities by installing elevated platforms, drop pit and other provisions for the repair and maintenance of Diesel freight locomotives ($21,000). The work will be done by railroad forces. (6) Construct mine tracks for the Clay County Coal Producers, Inc., at Hibbard, Ky., on the Horse Creek branch of the Cumberland division ($28,000). Grading and drainage will be provided by the coal company and the track work will be performed by L. & N. forces at the expense of the coal company.

The railroad has begun work on a grade reduction project at Benton Cut, near Paris, Tenn., on the Memphis line, Louisville division, at an estimated cost of $137,700. Authority for this project was granted in July, 1946, but work did not begin until May of this year. The Moss-Thornton Company, of Birmingham, Ala., was awarded the contract for 176,800 cu. yd. of excavation. Drainage and track work will be completed by railroad forces. The installation of a mechanical coaling station in Wheelerton, Tenn., was recently completed for the road by L. G. Plant.

Missouri Pacific.—This road is installing jointly with the Pennsylvania a car washer on the Terminal Association property at Ranken yard in St. Louis, Mo., at an estimated cost of $57,500. Various projects are also in progress between DD Junction, Ark., and Nuckles, at an estimated cost of $172,500. They include the following: Retire west main (low line) from DD Junction to Nuckles, 2.39 mi., including 4,238 lin. ft. of open-deck trestles; convert Diaz siding into second main track, DD Junction to Milepost 258.15, 1.09 mi.; replace No. 10 crossovers with No. 20 crossovers at White River Junction and apply remotely controlled power-operated switches; install two remotely controlled power-operated crossovers at Olyphant and retire interior siding; and rearrange signals.

Northeast Oklahoma.—This road is in the process of replacing its present 70-lb. rail with 90-lb. rail, at a cost of approximately $35,000.

Northern Pacific.—This road recently awarded the following contracts for construction projects, the estimated costs of which are shown in parentheses: To J. A. Terteling & Sons, Inc., for the grading in connection with a line change near Thompson Falls, Mont. ($50,000); to the American Bridge Company of Minneapolis, Minn., for the erection of two 161-ft. deck riveted truss spans and for the removal of an old bridge at the same point ($100,000); and to Haagenson & Tranby of McIntosh, Minn., for the grading work in connection with a line change to reduce curvature at Rider, N. D. ($94,000).

ABANDONMENTS

Chicago, Burlington & Quincy.—Approval by the Interstate Commerce Commission of a plan under which this company would continue to operate over approximately 53 miles of the Chicago Great Western to handle traffic formerly moved over its own line between Des Moines, Ia., and Osceola, is recommended in a proposed report by Examiner J. K. Lyle. The proposed operations would be substantially the same as those the Burlington has been conducting under the provisions of a commission service order issued last June, when flood waters rendered impassable that portion of its Des Moines-Osceola branch between Burch and New Virginia, approximately 42 miles. Some track damage also was sustained between New Virginia and Osceola, but that section was repaired and operation resumed as to freight service.

The examiner recommends that the Burlington be permitted to abandon that portion of its branch between Burch (approximately 2.4 miles from Des Moines) and Truro, approximately 32.1 miles, and to acquire trackage rights (comparable to those included in the service order) over the C. G. W. between Burch and Talmage, approximately 51 miles. The Burlington also operates under a trackage rights agreement over the C. G. W. between Des Moines and Burch. At the same time, he recommends that the commission approve as a permanent structure the 2,869-ft. connecting track which the Burlington, pursuant to the commission's service order, constructed between its own line and the C. G. W. at Talmage.

With respect to the connecting track, the examiner recommends that the commission overrule a motion filed by the Iowa State Commerce Commission, asking dismissal of that part of the application on the basis of contentions that the track was constructed contrary to the provisions of the Interstate Commerce Act. "The conclusion is warranted that the applicant had the sanction of this commission to construct a temporary connection, and that while the track which was built has the characteristics of a permanent structure it retains its temporary status until appropriate authorization is obtained under section 1 (18) of the act," he said. "If the authorization requested . . . should be denied, it would be incumbent upon the applicant to break the connection and remove the tracks as soon as operation could be resumed over its own facilities. If the authorization is granted, the temporary connection becomes permanent."

With respect to his recommendation that the commission deny the Burlington's request to abandon that portion of the branch between Truro and New Virginia, the examiner noted that the applicant has concluded to continue freight service from Osceola (where a connection is made with the Burlington's main line extending from Burlington to Council Bluffs) to New Virginia, 11.5 miles, and that more traffic ordinarily is handled at Truro, about 10 miles from New Virginia, than at the latter point.

The line of the C. G. W. over which the Burlington proposes to operate is part of the main line of the former from Kansas City, Mo., to Minneapolis, Minn., via Des Moines. It crosses the Burlington's Council Bluffs-Burlington line at Talmage and between that point and Burch roughly parallels the Burlington's Osceola-Burch line. The Burlington would be prohibited from performing local service of any character on the C. G. W. line and would not be permitted to use in any manner the facilities which the C. G. W. uses solely in connection with its local traffic.

According to the Burlington, it would cost $2,300,000 to place its line from Burch to Osceola in the same condition as the line of the C. G. W., an expenditure it could not justify economically for the traffic that might be available for movement over it. It also asserts that the C. G. W. line is "distinctly advantageous" in that it provides a shorter, more expeditious and economical route for the handling of westbound traffic than does the line to Osceola. "The conclusion is warranted," the examiner commented in part, "that the Great Western line permits a more efficient movement of the bridge traffic than does the applicant's Osceola line."

Pennsylvania.—Examiner A. G. Nye has recommended in a proposed report that Division 4 of the Interstate Commerce Commission authorize this road's subsidiary, the Pennsylvania & Atlantic, to abandon a portion of a branch from Toms River, N. J., to Bay Head, 18 miles. The line includes a 7,134-ft. wooden trestle with a 181-ft. draw span over Barnegat bay, part of which was destroyed by fire in December, 1946. Abandonment of the line will not cause any inconvenience or hardship

New York, reporting direct to J. Frank Doolan, vice-president in charge of operating-maintenance-engineering. The position of general manager has been discontinued. **P. R. Goulett,** assistant general manager at New Haven, has been placed in charge of the transportation department. The division superintendents will report to **W. A. Hurley,** assistant general manager at New Haven, **H. M. Simms,** general superintendent dining and parlor cars, reports to Mr. Doolan.

J. B. Helwig, western traffic manager of the Minneapolis & St. Louis, with headquarters at Los Angeles, Cal., has been appointed assistant vice-president at that point.

FINANCIAL LEGAL and ACCOUNTING

John R. Stevenson, assistant general freight claim agent of the New York Central system, has been advanced to general freight claim agent, with headquarters as before at Buffalo, N. Y., succeeding **W. M. Stewart,** deceased. **R. J. Tiffany,** assistant freight claim agent, has been appointed assistant general freight claim agent, with headquarters as before at Buffalo. **J. J. Pessler,** chief clerk, has been promoted to freight claim agent, with headquarters as before at Buffalo. **George Coates,** special agent, has been promoted to assistant freight claim agent at Buffalo.

OPERATING

A. T. Fuller has been appointed chief special agent of the Gulf Coast Lines and the International-Great Northern (parts of the Missouri Pacific Lines), with headquarters at Houston, Tex., succeeding **H. M. Wallis,** who has been granted a leave of absence.

S. McMahon, assistant general manager, Canadian Pacific Express, at Toronto, Ont., has been appointed general manager. He entered the service of the company at Revelstoke, B.C., in 1917 and has filled a wide range of positions, including that of clerk, vehicleman, train messenger, and agent at various points. Mr. McMahon became district representative, Pacific division, at Vancouver, B.C., in 1928, and was appointed assistant traffic manager at Toronto in 1937. He has been assistant general manager since December, 1945.

F. L. Dennis, superintendent of transportation of the Illinois Terminal at St. Louis, Mo., has been promoted to general superintendent at the point. **H. H. Smith,** inspector of transportation, has been advanced to assistant to general superintendent of car service.

J. E. Gauthier, whose appointment as general superintendent of the Quebec district of the Canadian National at Quebec, Que., was reported in *Railway Age* of May 8, was born at Portneuf, Que., on September 3, 1898. He entered railroad service in 1915 in the operating department of the Canadian National, serving in various positions from clerk to assistant superintendent at various points in the province of Quebec until

J. E. Gauthier

1940. Mr. Gauthier was appointed superintendent transportation of the Quebec district in 1940 and in 1945 he became superintendent of the Cambellton division at Campbellton, N.B., which position he held until his recent promotion.

E. W. Torian has been appointed superintendent of the Texas & New Orleans (part of the Southern Pacific Lines), with headquarters at Lafayette, La., and New Orleans, succeeding **R. M. Glover,** who has retired after 44 years of service with the road. Mr. Torian is succeeded as assistant superintendent at Lafayette by **T. A. Greeson,** assistant superintendent at Victoria, Tex. **R. E. Johnson,** trainmaster at Ennis, Tex., replaces Mr. Greeson. Mr. Johnson is succeeded by **O. W. Story. F. W. Hopkins,** assistant superintendent at New Orleans, has been appointed terminal superintendent at that point.

L. M. Olson, superintendent of the Atchinson, Topeka & Santa Fe, with headquarters at Emporia, Kan., has been promoted to assistant general manager at Los Angeles, Cal. He is succeeded by **O. H. Osborn,** superintendent at Winslow, Ariz., who in turn is replaced by **J. N. Landreth,** superintendent at Amarillo, Tex. Mr. Landreth is succeeded by **F. N. Stuppi,** transmaster at San Bernardino, Cal.

John A. McIsaac, assistant manager sleeping and dining car department of the Canadian National at Montreal, Que., has been appointed manager of that department, succeeding **William W. Swinden,** who has retired on pension after 40 years of service with this road. Mr. McIsaac, a native of Cape Breton, N.S., entered sleeping and dining car service with the Intercolonial (Canadian National) at Halifax, N.S., in agent, becoming superintendent the following year and supervisor in 1937. Mr. McIsaac was appointed assistant manager in 1946, which post he held until his present appointment.

Mr. Swinden was born at Buxar, Madras, India, on August 9, 1883, and attended George Watson's College, Edinburgh, Scotland, and Edinburgh 1910, rising to the position of supervisor there in 1919. In 1922 he went to Montreal, as sleeping and dining car

John A. McIsaac

University. He entered railroad service in July, 1907, as clerk in the sleeping and dining car department of the Canadian Northern (now Canadian National) at Winnipeg, Man. After serving in various other capacities he was appointed assistant to general superintendent of that department at Montreal in March, 1923, and became supervisor, sleeping and dining car service at Montreal in September, 1932. Mr. Swinden was appointed general superintendent, sleeping and dining car department at Montreal in March, 1934, and manager of that department in 1945.

F. R. Stafford, trainmister of the New York Central system at Rochester, N.Y., has been transferred to the Hudson and Mohawk divisions at Albany, N.Y., succeeding **J. V. Hughes,** who has been transferred to the Electric, Harlem and Putnam divisions at New York. **J. F. O'Connell,** trainmaster at Syracuse, N.Y., succeeds Mr. Stafford on the Rochester division.

Charles McDiarmid, chief engineer of the Georgia & Florida, with headquarters at Augusta, Ga., has been appointed operating officer.

TRAFFIC

Guy D. Larrabee, whose promotion to traffic manager of the Minneapolis & St. Louis at St. Louis, Mo., was reported in *Railway Age* of May 15, was born on August 3, 1918, at Hertel, Wis., and attended the University of Minnesota. Shortly thereafter he joined the M. & St. L.'s traffic department at Minne-

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to the few who patronize it for freight service, the examiner said, adding that other means of transportation are available for passengers.

Applications have been filed with the Interstate Commerce Commission by:

Midland Terminal.—To abandon its entire line, extending approximately 55 miles from Colorado Springs, Colo., to Cripple Creek. The applicant told the commission that the transfer of an ore reduction mill from Colorado Springs to Cripple Creek will take away traffic which produced approximately 86 per cent of its gross revenue.

New Iberia & Northern.—To abandon operations over that portion of the Iberia, St. Mary & Eastern between Franklin, La., and Shadyside, approximately 9.1 miles. Authority to abandon the segment itself also is sought by the lessor. According to the applicants, revenue accruing in the last five years from operation of the line does not justify its continued maintenance and operation.

Pittsburgh & Lake Erie.—To abandon operations under a trackage rights agreement over a branch of the Pittsburgh, McKeesport & Youghiogheny from a point near Fayette City, Pa., to a point near Landon, 1.4 miles. Authority to abandon the line also is sought by the lessor.

Division 4 of the I.C.C. has **authorized:**

Elgin, Joliet & Eastern.—To abandon operations under trackage rights over those portions of the Chicago & Eastern Illinois from Chicago Heights, Ill., to Sidell Junction, Rossville Junction to Sidell Junction, BX Tower to Brewer Junction, and Danville Junction to Jackson, Ind., a total of approximately 200 miles. The only traffic handled by the lessee consisted of coal from mines and stone from quarries no longer operated.

FINANCIAL

Alleghany Corporation.—*New Director.*—Andrew Van Pelt, a director of the Chesapeake & Ohio, has been elected a member of Alleghany's board of directors to represent the series A preferred stock, Mr. Van Pelt succeeds George Estin, resigned.

Chicago, Rock Island & Pacific.—*Initial Common Dividend.*—This road has declared an initial dividend of 75 cents a share on the common stock, payable on July 15 to stockholders of record on June 18. The road also declared two quarterly dividends of $1.25 each on the preferred stock, the first payable on September 30 and the second on December 31 to stockholders of record on, respectively, September 10 and December 10. An initial dividend of $2.50 a share on the preferred stock, for the first half of 1948, will be paid on June 30 to stockholders of record on June 10. (See *Railway Age* of May 22, page 63).

Gulf, Mobile & Ohio.—*New Director.*—H. E Warren, vice-president, purchasing and stores, G. M. & O., has been elected a director.

Meridian & Bigbee River.—*Reorganization.*—Making a proposed report on the reorganization of this road under section 77 of the Bankruptcy Act, Examiner J. V. Walsh has recommended that the Interstate Commerce Commission approve a plan whereby the capitalization would be reduced from $2,013,655 to $1,319,655. The new capitalization would consist of $35,000 of 20-year 4 per cent first mortgage bonds, $500,000 of 50-year 4 per cent income mortgage bonds and $784,655 of common stock. The recommended plan also provides that all of the new securities, except the first mortgage bonds, shall be delivered to the Reconstruction Finance Corporation. The first mortgage bonds would be issued only if the cash on hand at the time of the reorganization is insufficient for working capital and to pay certain priority claims. The effective date of the reorganization would be January 1.

New Jersey & New York.—*Reorganization.*—Division 4 of the Interstate Commerce Commission has approved as reasonable $6,000 as the maximum annual compensation to be paid to Peter Duryee, as trustee, and $7,500 as the maximum annual compensation to be paid to W. T. Margetts, Jr., as counsel for the trustee, for the 12-month period subsequent to June 30, for services rendered in connection with litigation against the Erie. The maximum limits of compensation will not be effective beyond June 30, 1949, unless authorized by further order of the commission.

New York Central.—*Control of Leased Line.*—Division 4 of the Interstate Commerce Commission has authorized this road to acquire, through ownership of stock, control of the Beech Creek, which has been operated under lease by the N.Y.C. since 1890. The N.Y.C. proposes to purchase 50,000 shares of Beech Creek stock from H. S. Vanderbilt, trustee, and such remaining shares as the holders thereof may, within a reasonable time after the commission's May 21 approval of the application, sell to the applicant upon the same terms and conditions. The price to be paid for the stock is $33 per share, or $1,650,000, plus an accrued dividend adjustment.

The commission said that, because the N.Y.C. has no knowledge or information as to how many other Beech Creek stockholders will desire to sell their stock on the same conditions, sufficient time should be allowed such holders to avail themselves of the N.Y.C.'s offer. Its approval of the transaction, therefore, was conditioned upon the N.Y.C.'s purchase, at the same price, of all shares tendered to it on or before September 30, and that before August 1, it advise all Beech Creek stockholders of that requirement. The commission's order further requires the N.Y.C. to report to it periodically, to and including December 31, all pertinent facts concerning such purchases.

"This is not to be construed as prohibiting the applicant, in its discretion, from purchasing additional shares after that date for $33 a share, or less, plus accrued dividends," the report went on to say.

Smoky Mountain.—*Reorganization.*—Division 4 of the Interstate Commerce Commission has announced that it will dismiss, for want of prosecution, this road's application for authority to abandon its entire line and to abandon operations under a trackage rights agreement over certain portions of the Southern unless the carrier complies (within 45 days from May 25) with a commission order of November 27, 1941, requiring it to file with the commission a return to the questionnaire as prescribed by that order. At the same time, the commission has denied that part of a petition filed by this road's trustee requesting the commission to recommend what, if any, action should be taken by him with reference to the institution of legal proceedings to recover funds which may have been improperly expended by the debtor.

It also has deferred action on other portions of the trustee's petition requesting the commission (1) to make an investigation in order to formulate a plan of reorganization for the debtor; (2) upon formulation of such plan, to certify the same to the court; and (3) to certify such fact to the court if no plan is feasible or practicable. The commission likewise deferred action on motions filed by the State of Tennessee and certain shippers to dismiss the trustee's petition.

Applications have been filed with the Interstate Commerce Commission by:

Fordyce & Princeton.—To change its presently authorized capital stock 1,400 shares, par value $100 a share, to 1,400 shares, par value $25 a share. The applicant told the commission that it desires to reduce its surplus deficit by changing the par value of the stock, of which, it said, approximately 1,100 shares are outstanding.

Chesapeake & Ohio.—To assume liability for $3,500,000 of equipment trust certificates, the proceeds of which will be applied toward the purchase of the following equipment, estimated to cost $3,555,248:

	Description and Builder	Estimated Unit Price
8	type 0-8-0 switching locomotives, with 8,000-gal. tenders (Baldwin Locomotive Works)	$113,357
2	6,000-hp. steam turbine electric drive passenger locomotives (Baldwin)	547,451
4	type 2-6-6-6 freight locomotives, with 25,000-gal. tenders (Lima-Hamilton Corp.)	388,371

The certificates, to be sold on the

basis of competitive bidding, will be dated July 1 and will mature in 10 annual installments of $350,000, starting July 1, 1949.

Kansas City Southern.—To issue $14,000,000 of series B first mortgage 20 year bonds, the proceeds of which will be applied to purchase from the Louisiana & Arkansas, at their principal amount and accrued interest, a like amount of L. & A. series D first mortgage 4 per cent bonds. All capital stock of the L & A. is owned by the applicant. The series B bonds, to be sold on the basis of competitive bidding, will be dated June 1 and would mature June 1, 1968.

Pennsylvania.—To assume liability for $17,570,000 of series F general mortgage bonds which its lessor, the Philadelphia, Baltimore & Washington, seeks authority to issue. The bonds would be dated May 1, would mature May 1, 1979, and would be sold on the basis of competitive bidding. Proceeds from the sale of the issue would be applied toward reimbursing the Pennsylvania for expenditures made for additions and betterments to the lessor's line and toward the retirement of prior lien obligations. The application noted that advances made by the Pennsylvania to its lessor for which settlement had not been made totaled $42,775,813 as of December 31, 1947.

Division 4 of the I.C.C. has **authorized:**

Reading.—To assume liability for $4,800,000 of series O equipment trust certificates, the proceeds of which will be applied toward the purchase of 3 6,000-hp. Diesel-electric road freight locomotives and 1,000 50-ton all-steel box cars, at an estimated total cost of $6,116,740, as outlined in *Railway Age* of May 22, page 62. The certificates will be dated June 1 and will mature in 20 semi-annual installments of $240,000, starting December 1 and ending June 1, 1958. The report also approves a selling price of 99.19 with a 2 per cent interest rate, the bid of Kidder, Peabody & Co., acting on behalf of itself and Dick & Merle-Smith, on which basis the average annual cost will be approximately 2.17 per cent. The certificates were reoffered to the public at prices yielding from 1.20 per cent to 2.40 per cent, according to maturity.

Mississippi Central.—To issue not exceeding $1,000,000 of first mortgage 4 per cent 30-year bonds and 111,210 shares of 5½ per cent non-cumulative first preferred stock, par value $10 per share, to be exchanged for outstanding first mortgage 5 per cent bonds due July 1, 1948, in the principal amount of $1,437,100, and $675,000 of second mortgage 6 per cent notes, of which $664,663 were due December 31, 1947. As owner of all of the M.C.'s outstanding first mortgage bonds and second mortgage notes, the United States Lumber Company has agreed to accept the new bonds and preferred stock at par in exchange therefor and to surrender for cancellation all of the outstanding notes and bonds. The $2,662,900 of bonds now held in the sinking fund also will be canceled. Any preferred stock in excess of that required, in addition to proposed bonds, to refund the indebtedness will either be issued at par for cash or held unissued. The new bonds will be dated April 1, will bear interest at the rate of 4 per cent and will mature April 1, 1978. They will be redeemable before maturity in whole or in part, at a premium of 5 per cent, if redeemed on or before April 1, 1953, and thereafter at a reduction in premium of 1 per cent for each five-year period until April 1, 1973, and thereafter and prior to maturity at par.

Dividends Declared

Elmira & Williamsport. —7% pfd., $1.60, semi-annually, payable July 1 to holders of record June 19.

Nashville & Decatur. — 7½% guaranteed, 93¾¢, quarterly, payable July 1 to holders of record June 19.

Average Prices Stocks and Bonds

	June 8	Last week	Last year
Average price of 20 representative railway stocks	54.69	54.62	42.94
Average price of 20 representative railway bonds	89.66	89.94	86.22

RAILWAY OFFICERS

EXECUTIVE

Clair M. Roddewig, whose election as vice-president—law, of the Chicago & Eastern Illinois, at Chicago, was reported in *Railway Age* of May 22, was born in Nebraska in 1903, and began his law career in South Dakota. He served successively as assistant attorney general and attorney general of the state of South Dakota, and from 1939 to 1942 he was district field attorney

Clair M. Roddewig

for the Interstate Commerce Commission, with headquarters at Minneapolis, Minn.

He joined the Office of Defense Transportation in 1942, advancing to assistant general counsel in the following year and to general counsel in 1944. Mr. Roddewig became associated with the C.&E.I. in 1946 as general counsel, the position he held at the time of his election as vice-president—law.

Carl Nyquist, vice-president and treasurer of the Chicago, Rock Island & Pacific, at Chicago, has retired after more than 50 years of service with the road.

A photo of Mr. Nyquist and a sketch of his career appeared in *Railway Age* of February 7, in connection with his re-election to the positions from which he has retired.

J. P. Kiley, whose promotion to operating vice-president of the Chicago, Milwaukee, St. Paul & Pacific, at Chicago, was reported in *Railway Age* of May 29, was born at Chicago on August 13, 1895, and is a graduate of Villanova college. He entered railway service in 1915 as a rodman on the Milwaukee, later being promoted to assistant valuation engineer, with headquarters in Chicago. He served in the latter capacity until 1930, except during the period covering World War I when he was in the armed forces. In 1930

J. P. Kiley

Mr. Kiley was advanced to engineering assistant to the chief financial and accounting officer at Chicago, and in 1940 he was further advanced to special representative of the chief operating officer, with the same headquarters. One year later he became auditor of investment and joint facility accounts, and in 1943 he was promoted to assistant to the general manager. Mr. Kiley was advanced to assistant general manager at Chicago in 1943, to assistant to president at Seattle, Wash., in 1946 and to vice-president at the latter point in May, 1947. He was serving as vice-president at Seattle at the time of his recent advancement.

Stanley F. Mackay, general manager of the New York, New Haven & Hartford at New Haven, Conn., has been appointed assistant vice-president, New York zone, with headquarters at

New York, reporting direct to J. Frank Doolan, vice-president in charge of operating-maintenance-engineering. The position of general manager has been discontinued. **P. R. Goulett,** assistant general manager at New Haven, has been placed in charge of the transportation department. The division superintendents will report to **W. A. Hurley,** assistant general manager at New Haven. **H. M. Simms,** general superintendent dining and parlor cars, reports to Mr. Doolan.

J. B. Helwig, western traffic manager of the Minneapolis & St. Louis, with headquarters at Los Angeles, Cal., has been appointed assistant vice-president at that point.

FINANCIAL LEGAL and ACCOUNTING

John R. Stevenson, assistant general freight claim agent of the New York Central system, has been advanced to general freight claim agent, with headquarters as before at Buffalo, N. Y., succeeding **W. M. Stewart,** deceased. **R. J. Tiffany,** assistant freight claim agent, has been appointed assistant general freight claim agent, with headquarters as before at Buffalo. **J. J. Pessler,** chief clerk, has been promoted to freight claim agent, with headquarters as before at Buffalo. **George Coates,** special agent, has been promoted to assistant freight claim agent at Buffalo.

OPERATING

A. T. Fuller has been appointed chief special agent of the Gulf Coast Lines and the International-Great Northern (parts of the Missouri Pacific Lines), with headquarters at Houston, Tex., succeeding **H. M. Wallis,** who has been granted a leave of absence.

S. McMahon, assistant general manager, Canadian Pacific Express, at Toronto, Ont., has been appointed general manager. He entered the service of the company at Revelstoke, B.C., in 1917 and has filled a wide range of positions, including that of clerk, vehicleman, train messenger, and agent at various points. Mr. McMahon became district representative, Pacific division, at Vancouver, B.C., in 1928, and was appointed assistant traffic manager at Toronto in 1937. He has been assistant general manager since December, 1945.

F. L. Dennis, superintendent of transportation of the Illinois Terminal at St. Louis, Mo., has been promoted to general superintendent at the point. **H. H. Smith,** inspector of transportation, has been advanced to assistant to general superintendent of car service.

J. E. Gauthier, whose appointment as general superintendent of the Quebec district of the Canadian National at Quebec, Que., was reported in *Railway Age* of May 8, was born at Portneuf, Que., on September 3, 1898. He entered railroad service in 1915 in the operating department of the Canadian National, serving in various positions from clerk to assistant superintendent at various points in the province of Quebec until

J. E. Gauthier

1940. Mr. Gauthier was appointed superintendent transportation of the Quebec district in 1940 and in 1945 he became superintendent of the Campbellton division at Campbellton, N.B., which position he held until his recent promotion.

E. W. Torian has been appointed superintendent of the Texas & New Orleans (part of the Southern Pacific Lines), with headquarters at Lafayette, La., and New Orleans, succeeding **R. M. Glover,** who has retired after 44 years of service with the road. Mr. Torian is succeeded as assistant superintendent at Lafayette by **T. A. Greeson,** assistant superintendent at Victoria, Tex. **R. E. Johnson,** trainmaster at Ennis, Tex., replaces Mr. Greeson. Mr. Johnson is succeeded by **O. W. Story. F. W. Hopkins,** assistant superintendent at New Orleans, has been appointed terminal superintendent at that point.

L. M. Olson, superintendent of the Atchinson, Topeka & Santa Fe, with headquarters at Emporia, Kan., has been promoted to assistant general manager at Los Angeles, Cal. He is succeeded by **O. H. Osborn,** superintendent at Winslow, Ariz., who in turn is replaced by **J. N. Landreth,** superintendent at Amarillo, Tex. Mr. Landreth is succeeded by **F. N. Stuppi,** transmaster at San Bernardino, Cal.

John A. McIsaac, assistant manager sleeping and dining car department of the Canadian National at Montreal, Que., has been appointed manager of that department, succeeding **William W. Swinden,** who has retired on pension after 40 years of service with this road. Mr. McIsaac, a native of Cape Breton, N.S., entered sleeping and dining car service with the Intercolonial (Canadian National) at Halifax, N.S., in agent, becoming superintendent the following year and supervisor in 1937. Mr. McIsaac was appointed assistant manager in 1946, which post he held until his present appointment.

Mr. Swinden was born at Buxar, Madras, India, on August 9, 1883, and attended George Watson's College, Edinburgh, Scotland, and Edinburgh 1910, rising to the position of supervisor there in 1919. In 1922 he went to Montreal, as sleeping and dining car

John A. McIsaac

University. He entered railroad service in July, 1907, as clerk in the sleeping and dining car department of the Canadian Northern (now Canadian National) at Winnipeg, Man. After serving in various other capacities he was appointed assistant to general superintendent of that department at Montreal in March, 1923, and became supervisor, sleeping and dining car service at Montreal in September, 1932. Mr. Swinden was appointed general superintendent, sleeping and dining car department at Montreal in March, 1934, and manager of that department in 1945.

F. R. Stafford, trainmister of the New York Central system at Rochester, N.Y., has been transferred to the Hudson and Mohawk divisions at Albany, N.Y., succeeding **J. V. Hughes,** who has been transferred to the Electric, Harlem and Putnam divisions at New York. **J. F. O'Connell,** trainmaster at Syracuse, N.Y., succeeds Mr. Stafford on the Rochester division.

Charles McDiarmid, chief engineer of the Georgia & Florida, with headquarters at Augusta, Ga., has been appointed operating officer.

TRAFFIC

Guy D. Larrabee, whose promotion to traffic manager of the Minneapolis & St. Louis at St. Louis, Mo., was reported in *Railway Age* of May 15, was born on August 3, 1918, at Hertel, Wis., and attended the University of Minnesota. Shortly thereafter he joined the M. & St. L.'s traffic department at Minne-

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a unit of POWER

THIS locomotive is a unit of power. It illustrates a significant fact. Where the amount of power that can be packed into a single unit is important—where you want 6000, 8000, even 10,000 horsepower in one engine—the steam locomotive is unchallenged.

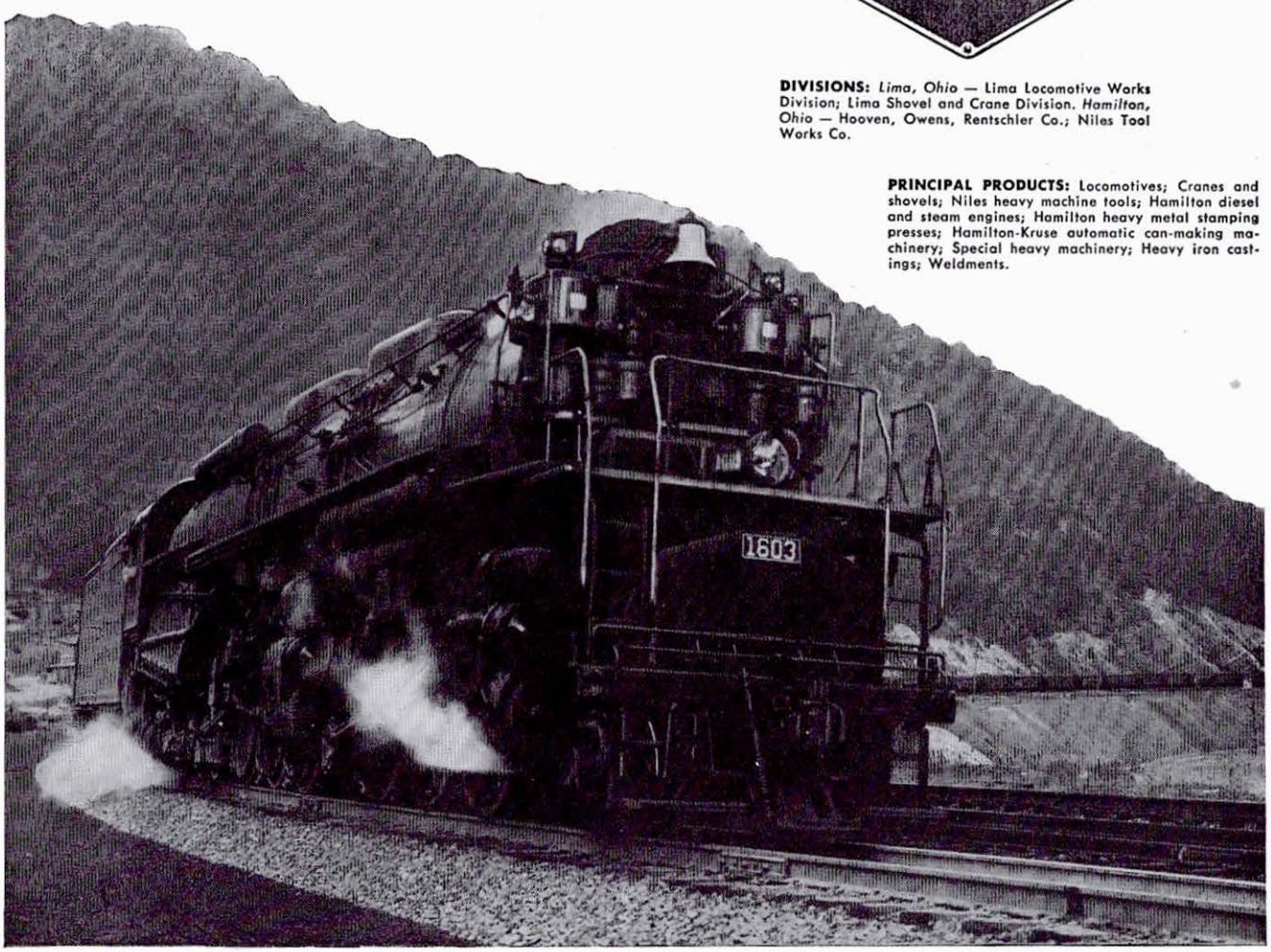
We build such locomotives—steam locomotives like this that have developed 8,000 horsepower and can do more. We will continue to do so. They are fine pieces of machinery. Modern in every respect, they are establishing remarkable records for economy, reliability and low maintenance.

Don't sell these steam giants short. They have their place—and in their place are unsurpassed.

LIMA HAMILTON CORPORATION

DIVISIONS: *Lima, Ohio* — Lima Locomotive Works Division; Lima Shovel and Crane Division. *Hamilton, Ohio* — Hooven, Owens, Rentschler Co.; Niles Tool Works Co.

PRINCIPAL PRODUCTS: Locomotives; Cranes and shovels; Niles heavy machine tools; Hamilton diesel and steam engines; Hamilton heavy metal stamping presses; Hamilton-Kruse automatic can-making machinery; Special heavy machinery; Heavy iron castings; Weldments.



apolis, and held various positions in that department until May, 1941, when he was appointed traffic agent, traffic department. He became traveling agent at Birmingham, Ala., in 1942, and in

Guy D. Larrabee

the following year was advanced to general agent. Mr. Larrabee was transferred to St. Louis on September 1, 1945, and was serving as general agent there at the time of his new appointment.

Joseph G. Wheeler, whose promotion to passenger traffic manager of the Western Pacific at San Francisco, Cal., was reported in *Railway Age* of May 22, was born at Aspen, Colo., in 1896. He began his railroad career with the Southern Pacific in 1917, serving until 1926 as ticket agent at various points

Joseph G. Wheeler

in California. He was appointed city ticket agent of the W. P. at San Francisco in 1926, and was advanced to general agent, passenger department, in 1934. Prior to his recent advancement, Mr. Wheeler had been general passenger agent at San Francisco since January, 1938.

Benjamin D. Anthony, whose appointment as manager of real estate and industrial development of the Delaware & Hudson at Albany, N. Y., was reported in *Railway Age* of June 5, was born at Clifford township, Susquehanna county, Pa., on June 26, 1879. Mr. Anthony received his civil engineering degree from the International Correspondence School in 1912 and his LL.B. degree from the American Extension University of Chicago in 1934. He entered railroad service on August 1, 1903, with the Delaware & Hudson and from April 1, 1909, to June 1, 1911, he was city engineer, Carbondale, Pa. Mr. Anthony then served until April, 1912, with the New York, Ontario & Western at Carbondale, following which he went with the Scranton Gas & Water Co. for five months. On September 9, 1912, he returned to the Delaware & Hudson as engineer in the real estate department at Scranton and in May, 1918, he became engineer and tax agent at Albany. Mr. Anthony was appointed assistant real estate and tax agent on March 1, 1920; real estate and tax agent in March, 1943, and assistant to general manager in January, 1944, holding the latter position at the time of his recent appointment as manager of real estate and industrial development.

Effective June 1, **C. C. Beauprie** was appointed secretary, Freight Claim Division, Association of American Railroads, with headquarters at Chicago.

J. X. Anderson, general freight agent —rates and tariffs—of the Illinois Terminal at St. Louis, Mo., has been promoted to freight traffic manager—rates and divisions, succeeding **J. A. Gorman,** who has been appointed commerce counsel. Mr. Anderson is succeeded by **A. S. Taylor.**

E. A. Rouse has been appointed assistant general freight agent of the Kansas City Southern, with headquarters at Kansas City, Mo.

A. W. Lindberg, commercial agent of the Chicago, Burlington & Quincy, with headquarters at St. Paul, Minn., has been promoted to general agent at Cincinnati, Ohio, succeeding the late **E. G. Waterman.**

W. H. Greer, division passenger agent of the Denver & Rio Grande Western at Salt Lake City, Utah, has retired after 31 years of service with the road. The position has been abolished.

J. M. Frank, general agent of the Grand Trunk Western, at Kansas City, Mo., has been transferred to Cincinnati, Ohio, succeeding **F. H. Bremer,** who has retired. **G. M. Newby,** general agent at Memphis, Tenn., succeeds Mr. Frank.

C. C. Luckel, whose appointment as director of industrial development of the Gulf Coast Lines and the International-Great Northern (subsidiaries of the Missouri Pacific Lines), at Houston, Tex., was reported in *Railway Age* of May 8, was born on February 11, 1892, at Galveston, Tex. He began his railroad career in 1916 with the Gulf, Colorado & Santa Fe as terminal land appraiser, and in the following year joined the Chicago, Milwaukee & St. Paul (now Chicago, Milwaukee, St. Paul & Pacific) as supervisor of land appraisals. He returned to the G. C. & S. F. in 1921 as senior land appraiser, remaining with that road until 1925,

C. C. Luckel

when he became associated with the M. P. Lines. He served successively as chief land appraiser; senior assistant engineer; assistant land and industrial commissioner; and land and industrial commissioner. Mr. Luckel was holding the latter post at the time of his recent promotion.

Edward W. Weeks, commercial agent of the Richmond, Fredericksburg & Potomac, has been appointed general agent, with headquarters as before at Richmond, Va.

John G. Roberts has been appointed assistant general freight agent of the Panhandle & Santa Fe (Atchison, Topeka & Santa Fe system), with headquarters at Amarillo, Tex.

James A. Beech, general freight agent of the Akron, Canton & Youngstown at Washington, D. C., has been promoted to assistant traffic manager-sales and service, with headquarters at Akron, Ohio. The position of general freight agent at Washington has been abolished.

James E. McInnis has been appointed general eastern passenger agent of the New York, Chicago & St. Louis at New York, succeeding **Charles A. Melin,** who has retired after 51 years of service with this road. Mr. Melin was born at Elyria, Ohio, on March 12, 1875, and entered railroad service in 1890 as a ticket clerk on the Cleveland, Lorain & Wheeling (now B. & O.) at Uhrichsville, Ohio, subsequently serving as freight and passenger brakeman and conductor. From 1897 to 1905 Mr. Melin was ticket agent for that road and the Nickel Plate, subsequently serving with the latter road as depot passenger agent at Chicago, traveling

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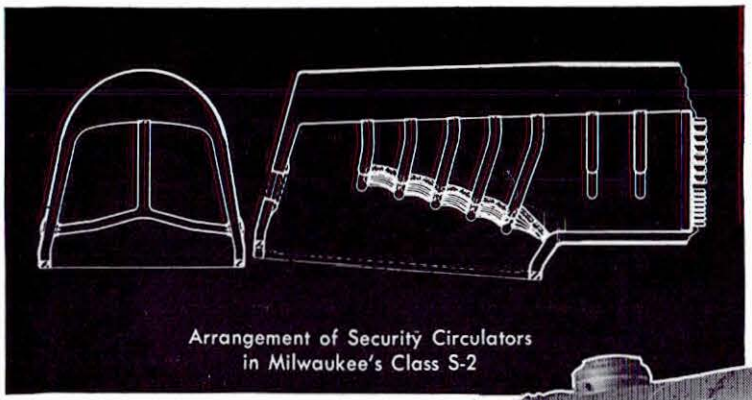
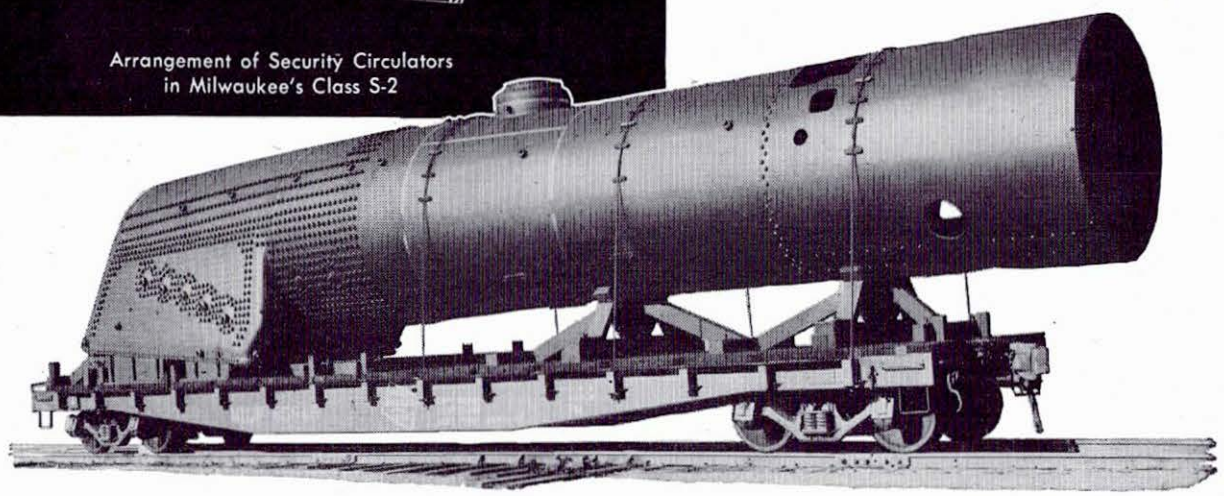


Arrangement of Security Circulators in Milwaukee's Class S-2



Security Circulators in all-welded boilers of Milwaukee 4-8-4s

The Chicago, Milwaukee, St. Paul and Pacific 4-8-4 type locomotives are being modernized with all-welded boilers, in each of which seven Security Circulators are installed.

Security Circulators are designed for use in any type of steam locomotive, and installations range from three to nine Circulators each, according to the size of the firebox. In addition to providing effective support for a 100% brick arch, Security Circulators improve the circulation of water in the side water-legs and over the crown sheet, and lessen honey-combing, flue plugging and cinder cutting.

AMERICAN ARCH COMPANY, INC.

NEW YORK • CHICAGO

SECURITY CIRCULATOR DIVISION

passenger agent at Fort Wayne, Ind.; district passenger agent at Erie, Pa.; Denver, Colo.; Cleveland, Ohio; and Minneapolis, Minn. In 1921 he became general eastern passenger agent of the Nickel Plate at Buffalo, N. Y., transferring to New York in 1927, where he remained until his retirement.

MECHANICAL

L. J. Verbarg, air conditioning engineer of the Missouri Pacific, has been appointed electrical engineer, with headquarters as before at St. Louis, Mo., succeeding **J. C. McElree,** who has retired after 44 years of railroad service. Mr. Verbarg is succeeded by **A. L. Kelly.**

PURCHASES and STORES

Gordon P. Bier, whose appointment as assistant to the director of purchases and stores of the Illinois Central, with headquarters at Chicago, was reported in *Railway Age* of May 29, was born at Anna, Ill., and started to work for the I. C. upon graduation from high school in 1923. He subsequently held several clerical positions on the St. Louis and Illinois divisions, moving to the general store at Chicago in 1929. A short time later he resumed his education and over a six-year period completed his studies at Northwestern University. In 1930 he was promoted to secretary to the general storekeeper and in 1935 he was further advanced

Gordon P. Bier

to secretary to the vice-president—purchases and stores. He became a buyer in the purchasing department in 1941, and, following service in the Navy during World War II, he returned to the I. C. at Chicago as office manager, purchases and stores department, in January, 1946. Mr. Bier was holding the latter post at the time of his recent appointment.

W. A. Moore, traveling engineer on the Birmingham division of the Louisville & Nashville, has been appointed chief fuel inspector, with headquarters at Louisville, Ky., succeeding **O. P. Wheeler,** who has retired.

ENGINEERING and SIGNALING

Robert H. Carpenter, assistant division engineer of the Kansas City (Mo.) terminal of the Missouri Pacific, has been appointed division engineer at Poplar Bluff, Mo., succeeding **Frank R. Woolford,** who has been appointed assistant superintendent at Nevada, Mo.

Alex Manson, assistant engineer in the miscellaneous department of the chief engineer's office, Louisville & Nashville, at Louisville, Ky., has been appointed assistant division engineer at Ravenna, Ky., a newly created position.

Ben H. Goodwin, assistant division engineer of the Southern at Atlanta, Ga., has been appointed division engineer at Valdosta, Ga., succeeding **John A. Walker,** who has retired after 46 years of service.

L. H. Hornsby has been appointed engineer of structures and communications of the Norfolk Southern, with headquarters at Norfolk, Va. He will have jurisdiction over bridges and buildings and the telegraph, telephone and signals departments.

W. J. Young has been appointed communications engineer of the Erie with headquarters at Cleveland, Ohio, succeeding **G. D. Poole,** whose promotion to assistant superintendent of communications at Cleveland was reported in the *Railway Age* of May 22, page 1055.

O. T. Carroll, assistant engineer of the Peoria & Pekin Union, at Peoria, Ill., has been appointed chief engineer, succeeding **R. E. Cooper,** who has resigned at his own request due to ill health. Mr. Carroll attended Bradley and Valparasio Universities, where he studied engineering. He was employed in the engineering department of the Atchison, Topeka & Santa Fe before joining the P. & P. U.

Arthur B. Stone, assistant chief engineer of the Norfolk & Western, has been promoted to chief engineer, with headquarters as before at Roanoke, Va., succeeding **W. P. Wiltsee,** who has retired after 47 years of service with that road. **W. L. Young,** principal assistant engineer, succeeds Mr. Stone as assistant chief engineer, with headquarters as before at Roanoke. **James Y. Neal,** assistant engineer at Norfolk, Va., has been promoted to principal assistant engineer at Roanoke, succeeding Mr. Young. **John F. Newsom, Jr.,** assistant engineer of buildings at Roanoke, succeeds Mr. Neal as assistant engineer at Norfolk. **Charles E. Lex, Jr.,** a draftsman, has been advanced to assistant engineer of buildings.

Mr. Stone was born at Roanoke, Va., on August 21, 1890. He began his career in 1906 with the Virginia Bridge & Iron Co. and went with Milliken Brothers, Staten Island, N. Y., in 1910, and with Post & McCord, New York, in 1911. He entered the service of the Norfolk & Western as a bridge draftsman on July 29, 1912, and was promoted to chief structural draftsman in February, 1929, and to bridge engineer in

Arthur B. Stone

November, 1930. Mr. Stone was appointed assistant chief engineer on October 1, 1941, which position he held until his recent promotion to chief engineer. He was in direct charge of work on the recently completed merchandise pier N at Norfolk.

Mr. Wiltsee was born at Cincinnati, Ohio, on May 30, 1878. After serving from 1895 until 1900 as rodman and transitman and in various jobs, including government river and harbor surveys, Mr. Wiltsee entered railroad service in the latter year as resident engineer on construction of the Cincinnati,

W. P. Wiltsee

Portsmouth & Virginia Belt Line at Cincinnati. When the latter road was purchased by the Norfolk & Western in April, 1901, Mr. Wiltsee became a draftsman for the N. & W. at Roanoke, being promoted to chief draftsman for branch lines at Radford, Va., eight months later. He was promoted to assistant engineer, branch lines, in July, 1902, transferring to Norfolk in March,

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22 New Lima Locomotives For L & N Use H-S Products

HSGI Cylinder Bushings and Light Weight Steel Pistons for Largest Recent Steam Locomotive Order

By Special Correspondence

BOSTON — Biggest order of its kind placed by any American railroad so far in 1948 recently went to the Lima-Hamilton Corporation for 22 steam locomotives of the 2-8-4 class. Destined for service on the Louisville and Nashville railroad, these locomoti...

Hunt-Spiller Mfg. Corporation of South Boston, Mass., makers of air furnace gun iron and specialized steel castings, will supply cylinder bushings and steel pistons for the new locomotives. Hunt-Spiller is well-known in the railroad supply field, having furnished locomotive components to the ma...

THIS IS NOT NEWS!

The usual and expected is seldom worthy of comment. After all, just about *every* steam locomotive the L & N owns has some Hunt-Spiller products on it, and this has been true for some thirty-eight years. So you may be sure that "The Old Reliable" needed no further convincing of the excellence and dependability of Hunt-Spiller products for its new locomotives.

The long-standing preference of the Louisville and Nashville is just one example of a general railroad practice, for most Class I American roads have been Hunt-Spiller customers since the early years of the century.

Hunt-Spiller are exclusive railroad sales representatives for Double Seal Piston Rings made for Diesel and other services. Double Seal rings are cast from Hunt-Spiller *Air Furnace* Gun Iron.

HUNT SPILLER GUN IRON HSGI *AIR FURNACE PROCESS*

HUNT-SPILLER MFG. CORPORATION

N. C. RAYMOND, *President* — E. J. FULLER, *Vice-Pres. & Gen. Mgr.*

383 Dorchester Ave. ★ South Boston 27, Mass.

Canadian Representatives: Joseph Robb & Co., Ltd., 4050 Namur St., Montreal 16, P. Q.

Export Agents:
International Rwy. Supply Co., 30 Church Street, New York 7, N. Y.

Cylinder Bushings	Crosshead Shoes	Dunbar Sectional Type Packing
Cylinder Packing Rings	Hub Liners	Duplex Sectional Type Packing for Cylinders and Valves (Duplex Springs for Above Sectional Packing)
Pistons or Piston Bull Rings	Shoes and Wedges	
Valve Bushings	Floating Rod Bushings	
Valve Packing Rings	Light Weight Valves	Cylinder Snap Rings
Valve Bull Rings	Cylinder Liners and Pistons for Diesel Service	Valve Rings, All Shapes

1912. From 1916 to 1923 Mr. Wiltsee was in charge of engineering in connection with maintenance of way, water supply and fuel stations over the entire system. He became acting chief engineer on February 16, 1923, and was appointed chief engineer on January 1, 1924, which position he held until his retirement.

Mr. Young was born at Rocky Mount, Va., on July 20, 1901, and was employed as a draftsman with the Virginia Bridge Company from 1919 to 1921 and as construction engineer by the Atlantic Bridge Company from 1921 to 1924. He entered railroad service in

W. L. Young

1924 as draftsman with the Norfolk & Western, becoming crossing engineer in October, 1930; bridge engineer on October 1, 1941, and principal assistant engineer on December 1, 1945. Mr. Young held the latter position until his recent promotion to assistant chief engineer.

Mr. Neal entered the service of the

James Y. Neal

Norfolk & Western as a chainman in February, 1912, later working as a rodman and transitman. In December, 1918, he was promoted to assistant resident engineer and four years later was advanced to resident engineer at Williamson, W. Va. He was transferred to Norfolk, Va., in October, 1934, and promoted to assistant engineer, with jurisdiction over the Norfolk terminal and the Norfolk division, on March 1, 1940, serving in this capacity at the time of his recent promotion to principal assistant engineer.

Mr. Newsom was graduated from Virginia Polytechnic Institute with a degree in civil engineering in 1923.

John F. Newsom, Jr.

Shortly after his graduation he entered the service of the Norfolk & Western as rodman, subsequently becoming inspector, transitman and draftsman. Mr. Newsom was promoted to resident engineer in 1941; maintenance engineer in 1945; and assistant engineer of buildings at Roanoke in May, 1947. He held the latter position at the time of his appointment as assistant engineer at Norfolk.

Charles E. Lex, Jr.

Mr. Lex worked for a Cincinnati, Ohio, construction firm before going with the Norfolk & Western in October, 1940, where he was draftsman at the time of his recent promotion. He was in the U. S. Army from 1942 until 1945, and saw service in the 3rd Military Railway Service, Persian Gulf Command, leaving as a captain of engineers.

Charles C. Stelling, principal assistant engineer of the Georgia & Florida, has been appointed engineer maintenance of way and structures, with headquarters as before at Augusta, Ga. The position of principal assistant engineer has been abolished.

H. L. Black, whose appointment as signal engineer of the Canadian National system at Montreal, Que., was reported in *Railway Age* of May 22, was born at Milford, Ill. Mr. Black entered the service of the Canadian National as a signal maintainer at St. John, N. B., in 1914, and was appointed signal foreman at Moncton, N. B., in 1916. From 1918 to 1923 he served as supervisor at Bethel, Me.; Gorham, N. H.; Portland, Me.; and Richmond, Que. Mr. Black was appointed superintendent of signals

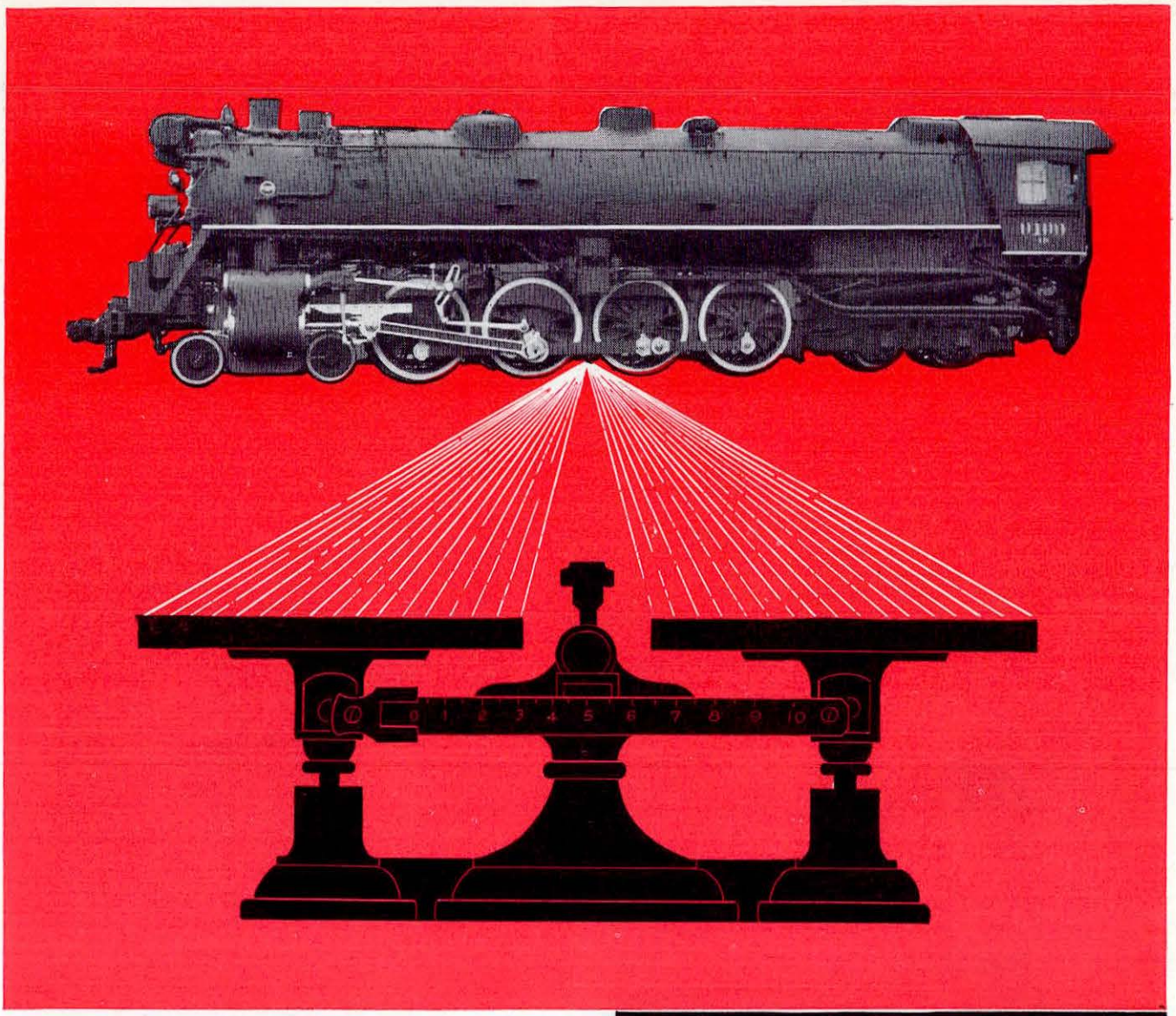
H. L. Black

at Toronto, Ont., in 1923 and ten years later transferred to Moncton as signal engineer of the Atlantic region, where he remained until his recent promotion to signal engineer of the system. Mr. Black was responsible for the installation of signals in the Toronto terminal development during 1929 and 1930. As signal engineer of the Atlantic region, he supervised the installation of central traffic control on the C.N.R.'s line between Truro, N. S. and Halifax.

E. H. Roth, assistant engineer of the Norfolk & Western at Bluefield, W. Va., has been transferred to Roanoke, Va., succeeding **B. E. Crumpler,** who succeeds Mr. Roth at Bluefield.

T. F. Jones, assistant valuation engineer of the Southern Pacific Lines in Texas and Louisiana, with headquarters at Houston, Tex., has been appointed valuation engineer and tax commissioner at that point, succeeding **John Lansdale,** who has retired after a railroad career of 42 years. Mr. Jones is succeed-

News Department continued on next left-hand page



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The Sign of QUALITY **Esso** *The Symbol of* SERVICE

ed by **D. C. Dayton**, assistant engineer. **William F. Sanders**, assistant engineer, has been appointed assistant valuation engineer, succeeding **C. N. Campbell**, who has retired after 43 years of service with the S. P.

SPECIAL

J. H. Sheehan, chief of secret service of the Southern Pacific at San Francisco, Cal., will retire on May 31, after 52 years of service with the company. He will be succeeded by **R. L. Toriggino**.

E. Smith Reed, whose promotion to director of industrial development of the Missouri Pacific, at St. Louis, Mo., was reported in *Railway Age* of May 8, was born on February 21, 1907, at Greenville, Miss. He was graduated by the University of Arkansas in 1931 with a Bachelor of Science degree in chemical engineering, and in 1933 he joined the Athletic Mining & Smelting Co., at Fort Smith, Ark., as chemical engineer. He became an associate engineer with the Aluminum Company of America, at Bauxite, Ark., in 1936, and industrial engineer for the state of

E. Smith Reed

Arkansas, at Little Rock, Ark., in 1939. He later served for two years as industrial adviser to the St. Louis Southwestern, at Washington, D. C. Mr. Reed joined the M. P. in August, 1945, as assistant director of industrial development, which post he held at the time of his recent advancement.

Leo F. Schmit, whose promotion to division superintendent of the Railway Express Agency, with headquarters at Lincoln, Neb., was reported in *Railway Age* of April 17, was born on March 27, 1888, at Oshkosh, Wis. He began his career with the Wells Fargo & Co. Express (a predecessor company of the R.E.A.) in 1906, advancing to cashier at Oshkosh in 1908 and to clerk in the superintendent's office at Milwaukee, Wis. in 1912. He later held successive positions with the R.E.A. and its predecessor companies as chief clerk in Milwaukee, route agent and district manager of public relations at Madison, Wis., and agent at Minneapolis, Minn. Mr. Schmit was appointed chief clerk to the general manager at St. Paul, Minn., in 1945, and general agent at Minneapolis in 1946. He was holding the latter post at the time of his recent advancement.

George Macklem, whose appointment as superintendent of the Railway Express Agency at Detroit, Mich., was reported in *Railway Age* of April 17, was born on December 24, 1884, at Kincardine, Ont. He has served with the R.E.A. and its predecessor companies since 1908, having joined the National Express in that year as a warehouseman at Detroit. He subsequently held various positions in Detroit, and was advanced to supervisor of vehicle service there in 1919 and to supervisor of vehicle and terminal service in 1924. Mr. Macklem went to Chicago in 1941 as assistant superintendent of terminal service, and in 1943 was appointed night superintendent of terminal service. In June, 1945, he was appointed safety director, which post he held at the time of his new appointment.

Paul J. Hayes has been appointed assistant chief special agent of the Illinois Central, with headquarters at Chicago.

F. L. Hanlon, assistant to general manager (personnel) of the Delaware & Hudson at Albany, N. Y., has been appointed manager of personnel. Mr. Hanlon's former title has been abolished.

Frederick L. Hanlon, assistant to general manager (personnel) of the Delaware & Hudson at Albany, N. Y., has been appointed manager of personnel, with the same headquarters. Mr. Hanlon was born at Redford, Clinton county, N. Y.,

Frederick L. Hanlon

on December 25, 1881, and entered railroad service in 1903 as a laborer with the Delaware & Hudson, becoming a locomotive fireman in 1904 and a locomotive engineer in 1906. He was appointed local chairman, Brotherhood of Locomotive Firemen & Enginemen in 1907 and general chairman in 1908. In 1916 he became locomotive engineer of the D. & H.; in 1920, supervisor of wage and working agreements, and in 1942, assistant to general manager (personnel), holding the latter position until his recent appointment as manager of personnel. Mr. Hanlon's former title has been abolished.

J. R. Spratt has been appointed manager forest and land development, Atlantic Land & Improvement Co. (affiliated with the Atlantic Coast Line), with headquarters at LaBelle, Fla., and will manage the lands of that company in Hendry, Lee, Collier, and Polk counties, Fla. Mr. Spratt, former assistant state forester for North Carolina, will be in charge of the development and

J. R. Spratt

management of approximately 230,000 acres of land in central and south Florida. An honor graduate of the North Carolina State College Forestry School in 1935, Mr. Spratt has been connected with the North Carolina State Forest Service since then, serving as district forester, forest inspector, and assistant state forester in charge of forest fire protection.

Herbert S. Thompson, safety supervisor of the Southern system at Charlotte, N. C., has been promoted to general safety supervisor, with the same headquarters.

OBITUARY

Ben F. Morris, freight traffic manager -rates and charges of the Louisville & Nashville at Louisville, Ky., died on June 4.

Frank O'Brien, assistant general passenger agent of the New York, Chicago & St. Louis at Cleveland, Ohio, died on May 29 at Cleveland.

E. G. Waterman, general agent of the Chicago, Burlington & Quincy, with headquarters at Cincinnati, Ohio, died recently.

GENERAL NEWS

(Continued from page 68)

Highway Transportation Specialist Joins Chamber of Commerce Staff

Francis E. Twiss has been appointed highway transportation specialist in the Transportation and Communication Department of the Chamber of Commerce of the United States. According to the chamber's announcement, Mr. Twiss' duties will involve responsibility for all matters dealing with interstate and local transportation, including the development of urban traffic improvement measures, solutions to the parking problem, increased transit efficiency and improved traffic administration.

A native of Hartford, Conn., Mr. Twiss is a graduate of Rensselaer Polytechnic Institute and is the recipient of a certificate of transportation from the Bureau of Highway Traffic at Yale University, where he later was employed as an assistant professor.

R.F.C. Extended

President Truman has signed S.2287, the bill enacted recently by Congress to extend the life of the Reconstruction Finance Corporation until June 30, 1956. The corporation, which had been scheduled to go out of business on June 30, is authorized by the extension legislation to continue its lending activities on a restricted scale for six more years, until June 30, 1954, the remaining two years of its new eight-year term being reserved for liquidation.

During the new term, the amount of capital stock R.F.C. may have outstanding will be limited to $100,000,000; and investments, loan commitments, etc., made subsequent to June 30, must not aggregate more than $1.5 billion at any time. In the latter connection, Congress last year reduced this limit on R.F.C. investments from a potential of more than $18 billion to $2 billion.

The extension legislation leaves provisions relating to railroad and air line loans substantially the same as they have been. Under them, R.F.C. is authorized:

"To purchase the obligations of and to make loans to any business enterprise organized or operating under the laws of any State or the United States: *Provided*, That the purchase of obligations (including equipment trust certificates) of, or the making of loans to, railroads engaged in interstate commerce or air carriers engaged in air transportation as defined in the Civil Aeonautics Act of 1938, as amended, or receivers or trustees thereof, shall be with the approval of the Interstate Commerce Commission or the Civil Aeronautics Board, respectively: *Provided further*, That in the case of such railroads or air carriers which are not in receivership or trusteeship, the Commission or the Board, as the case may be, in connection with its approval of such purchases or loans, shall also certify that such railroad or air carrier, on the basis of present and prospective earnings, may be expected to meet its fixed charges without a reduction thereof through judicial reorganization except that such certificates shall not be required in the case of loans or purchases made for the acquisition of equipment or for maintenance."

Maintenance Costs that show a.. *profit*

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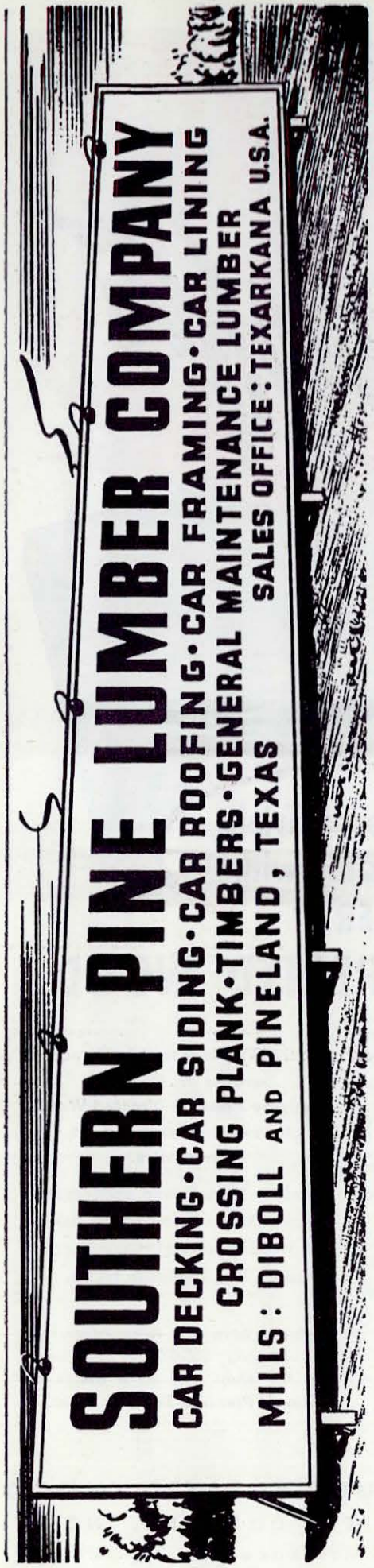
(News Department continued on next left-hand page)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No financial assistance is to be extended by R.F.C. under the foregoing provisions unless such assistance is not otherwise available "on reasonable terms"; and no loans, including extensions, are to be made for periods exceeding 10 years, nor are any securities with terms exceeding 10 years to be purchased by R.F.C. These restrictions on maturities are modified by a proviso which stipulates that they shall not apply to securities or obligations received by R.F.C. "as a claimant in bankruptcy reorganization or as a creditor in proceedings under section 20b of the Interstate Commerce Act." Section 20b is the new section, added by the recently-enacted "Mahaffie" act which sets up procedures for the voluntary readjustment of railroad financial structures along lines of the former Chandler and McLaughlin acts.

April Truck Traffic

Motor carriers reporting to the American Trucking Associations transported in April 2,767,597 tons of freight, a decrease of 1.8 per cent under the March total of 2,818,962 tons, but an increase of 14.2 per cent over the 2,423,743 tons hauled in April, 1947. The A.T.A. index number, based on the 1938-40 average monthly tonnage of the reporting carriers, was 225.

The April figures, according to the A.T.A., are based on comparable reports from 277 carriers in 43 states. Carriers in the Eastern district reported a decrease of 2.7 per cent below March and an increase of 11.8 per cent over April, 1947; carriers in the Southern region reported a decrease of 3.6 per cent below March and an increase of 39.4 per cent over April, 1947; and carriers in the Western district reported increases of 0.4 per cent and 13 per cent, respectively.

Faricy and Woodruff Will Speak At Accounting Division Meeting

William T. Faricy, president of the Association of American Railroads, R. E. Woodruff, president of the Erie, E. H. Bunnell, A.A.R. vice-president in charge of the Accounting, Taxation and Valuation Department, and George O. May, consulting associate, Price Waterhouse & Co., will deliver addresses at the annual meeting of the A.A.R.'s Accounting Division, which will be held at the Hotel Cleveland, Cleveland, Ohio, from June 28 through July 1. Another address will be delivered by the division's chairman, T. J. Tobin, comptroller of the Erie, who will preside at the meeting.

The program, issued last week by Secretary E. R. Ford, also lists informal talks which will be made by directors of three Interstate Commerce Commission bureaus—Ford K. Edwards of the Bureau of Accounts and Cost Findings, W. H. S. Stevens of the Bureau of Transport Economics and Statistics, and G. S. Douglass of the Bureau of Valuation. These are scheduled for the July 1 session along with the addresses of Mr. May and Chairman Tobin. Messrs. Faricy and Woodruff will speak at June 29's opening session of the general meeting, the program for June 28 being the usual "open house" meetings of the division's various standing committees. Mr. Bunnell's address will be delivered at the June 30 session.

The program also calls for the presentation of standing-committee reports, and of several papers. The latter will be: Recent Developments in Cost Finding for Railway Freight Service, by K. H. Lyrla, auditor of disbursements of the Illinois Central; Machine Accounting, by L. B. Pond, assistant comptroller of the New York, New Haven & Hartford; Ticket Selling and Related Station Accounting, by J. H. Scott, auditor of passenger accounts of the Southern; and Accounting Aids to Management, by C. W. Powell, auditor of disbursements of the Seaboard Air Line.

I.C. Act Amendment Approved

President Truman has signed H.R. 3730, the recently-enacted bill which amends section 20 (12) of the Interstate Commerce Act to provide that an initial or delivering carrier shall be entitled to recover from a carrier on whose line loss of, or damage to, property is sustained, the amount of any expense "reasonably incurred by it in defending any action at law brought by owners of such property." The amendment is an extension of that provision which stipulates that the initial or delivering carrier is entitled to recover the amount of the loss.

Ask RRs, Receivers of Coal to Help End Coal Car Shortage

Receivers of coal must unload cars faster and the railroads must move these cars more speedily if the current shortage of equipment available for coal movement is to be remedied, the Coal & Coke committee of the Mid-West Shippers Advisory Board warned this week in a letter to users of coal cars. Fred A. Schleifer, committee chairman, asserted that "generally speaking, the situation is now worse than the critical car shortage of 1922." The mines are losing one to three days work a week with little or no hope for improvement, he stated, adding that "this poor performance is extremely costly to the coal operators, the railroads and all users of coal."

Mr. Schleifer pointed out that the recent "work stoppage" in the mines resulted in a national coal production loss of about 45,000,000 tons, and that resumption of work on April 19 led to congestion which, in turn, caused car shortages at the mines. "It is clear, therefore, that strikes are responsible for the peaks and valleys in the transportation of coal, and the effect is seriously disruptive to a well-balanced, smooth-functioning railroad machine."

An additional factor contributing to the current shortage, Mr. Schleifer

stated, is the failure of the carriers to receive their full quota of new freight cars under the 10,000 car-per-month program. At the close of the first four months of this year, 3,216 new gondolas were installed and 4,696 gondolas were retired, making a net deficit of 1,480 gondolas, he stated. During the same period, 11,232 hoppers were installed and 3,353 hoppers were retired, making a net gain of 7,879 hoppers.

Supply Manufacturers Plan Exhibits at Railroad Fair

Twenty-one railroad supply firms have thus far announced plans to portray their respective contributions to the railroad industry by means of individual exhibits at the forthcoming Railroad Fair at Chicago, July 20 to September 6, inclusive (see *Railway Age* of May 1, page 39). In addition to supply exhibits and those of 23 large railroads, displays have been contracted for by the Pullman Company, the Railway Express Agency, the Railroad Retirement Board and the National Safety Council.

The 21 aforementioned companies are: the Electric-Motive Division of General Motors Corporation; Pullman-Standard Car Manufacturing Company; the Budd Company; American Steel Foundries; Association of Manufacturers of Chilled Car Wheels; American Refrigerator Transit Company; Clark Equipment Company; Dieselite Engineering Company; Fafnir Bearing Company; General Electric Company; General Steel Castings Corporation; Great Lakes Steel Corporation; Heywood-Wakefield Company; Haffner-Thrall Car Company; Hertz Drive-Ur-Self System; Illinois Bell Telephone Company; Mars Signal Light Company; the Pyle-National Company; Timken Roller Bearing Company; Union Switch & Signal Co. and the Unit Crane & Shovel Corp.

House Passes Rivers Bill

What was described as a non-controversial rivers and harbors and flood control authorization bill, "which will cost less than legislation for like purposes in the past 25 years," was passed by the House on June 3. The bill, H.R.6419, which had been reported favorably from the House committee on public works early last month, carries no appropriations for the projects it authorizes; but it adds them to the backlog of projects to which funds may be allocated from those carried in appropriation bills for the rivers and harbors and flood control work of the Army's Corps of Engineers.

The bill would authorize 32 rivers and harbors projects on which the estimated cost of construction would be $20,887,900, while the estimated annual maintenance cost would be $652,200. Largest of the estimated expenditures for construction would be $5,057,000 for Galveston (Tex.) harbor, the Galveston channel, and the Houston ship channel. The other larger projects on the list are: Pillar Point, Halfmoon bay, Calif., $4,500,000; Grays harbor, Wash., $3,605,700; Port Aransas-Corpus Christi, Tex., $2,250,000; Norfolk (Va.) harbor, southern branch of Elizabeth river, $1,730,000.

The estimated costs of the other projects on the list range from $16,400 to $760,000. The bill would also authorize preliminary examinations and surveys of nine additional rivers and harbors projects. As to flood control, the bill would authorize 13 projects, their estimated costs totaling $22,875,000.

The statement that the projects proposed in the bill would cost less than those authorized in any similar bill for the past 25 years was made by Representative Rizley, Republican of Oklahoma, while the measure was called non-controversial by the chairman of the committee on public works, Representative Dondero, Republican of Michigan. The ranking minority member of the latter committee — Representative Whittington, Democrat of Mississippi— also gave the bill his full endorsement, saying it called for "very modest authorizations."

Mr. Whittington said further that the present backlog of authorized rivers and harbors and flood control projects would cost a total of $3,556,764,234 to complete. He went on to express his view that there should be "annual authorizations" in order that there will always be an "adequate backlog."

Transportation Association Adds Nine Members to Board

Nine new members recently were added to the board of directors of the Transportation Association of America. The new directors are: L. F. Orr, general traffic manager, Pet Milk Company, St. Louis, Mo.; O. W. Tuckwood, general traffic manager, American Smelting & Refining Co., New York; H. Nelson McDougall, chairman, National Bank of Commerce, Portland, Me.; F. O. Prior, vice-president, Standard Oil Company (Indiana), Chicago; George K. Whitney, trustee, Massachusetts Investors Trust, Boston, Mass.; George M. Hopfenbeck, vice-president, Colorado Milling & Elevator Co., Denver, Colo.; John T. Hutchinson, president, Lake Carriers Association, Cleveland, Ohio; Lachlan Macleay, president, Mississippi Valley Association, St. Louis; and F. W. Marble, president, Stock Growers National Bank, Cheyenne, Wyo.

Honor Osborn of Electro-Motive

An honorary degree of Doctor of Science was awarded to C. R. Osborn, vice-president of the General Motors Corporation and general manager of its Electro-Motive Division, at the June 4 commencement of the University of Cincinnati. Mr. Osborn was graduated by the university in 1921 with a degree in mechanical engineering.

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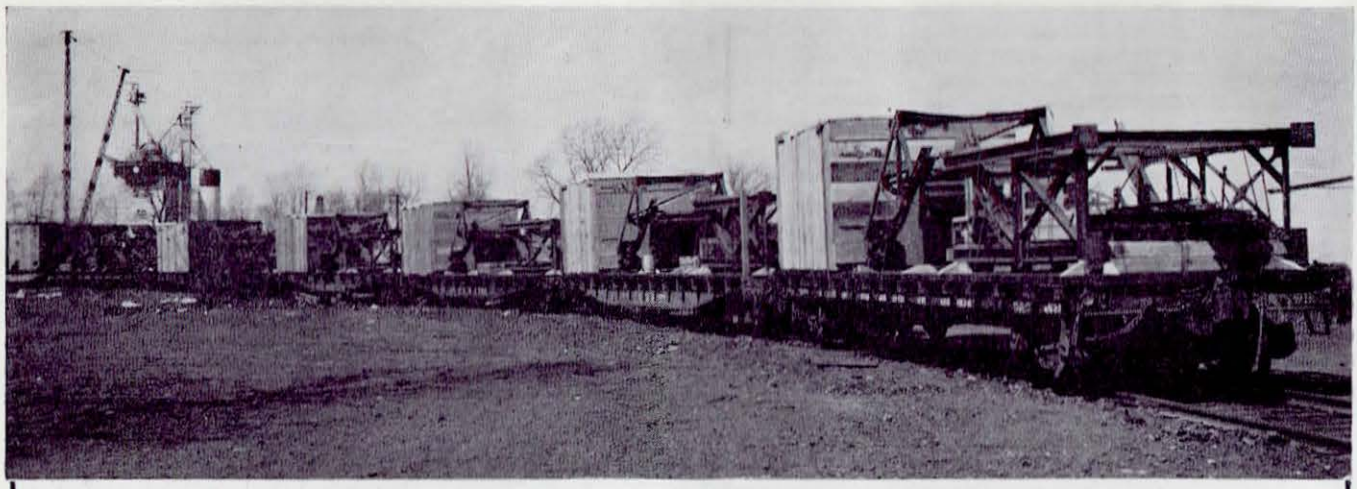

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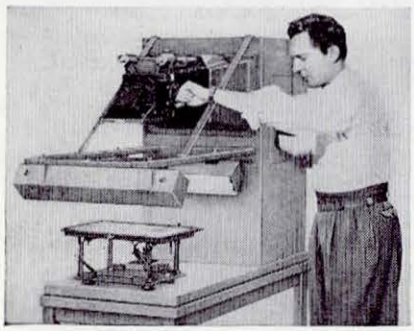

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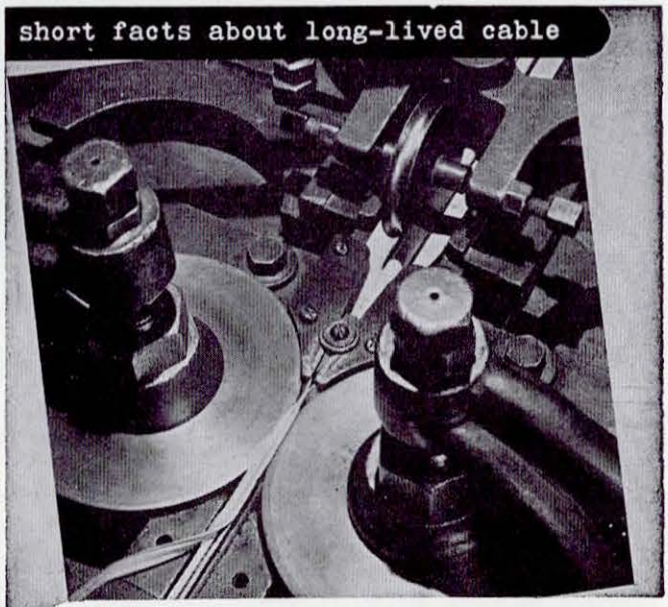

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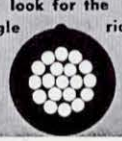

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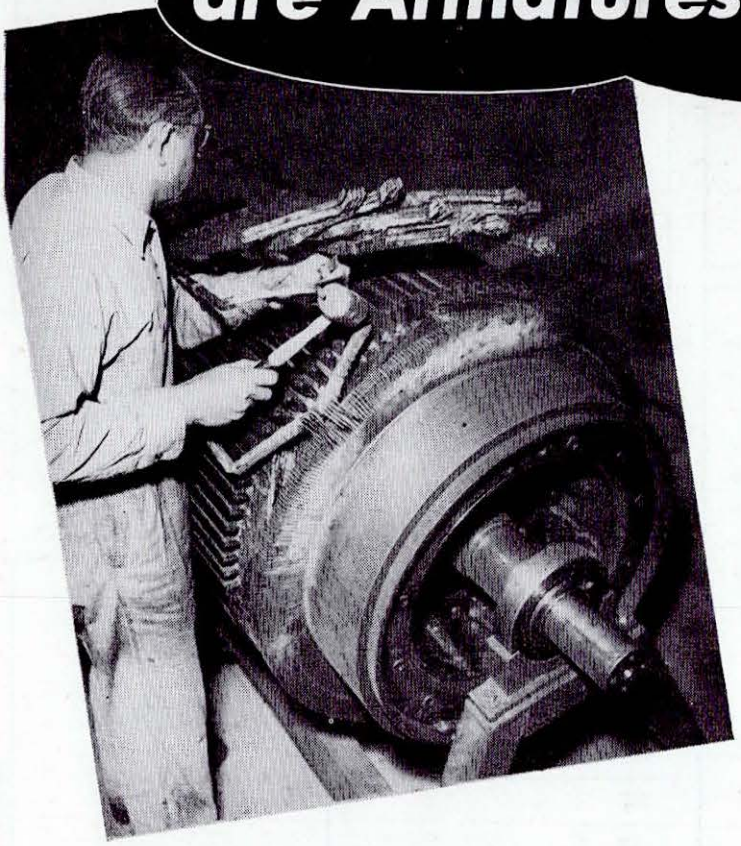

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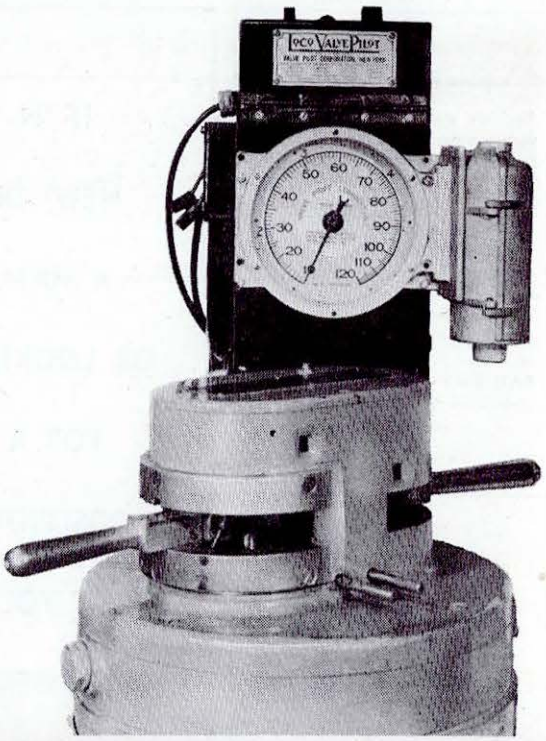

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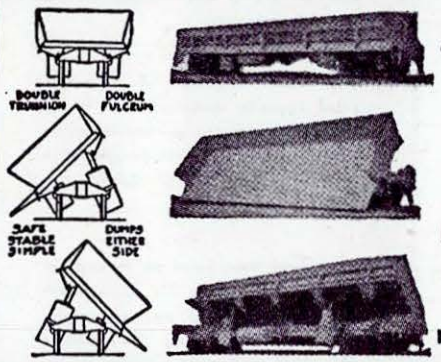

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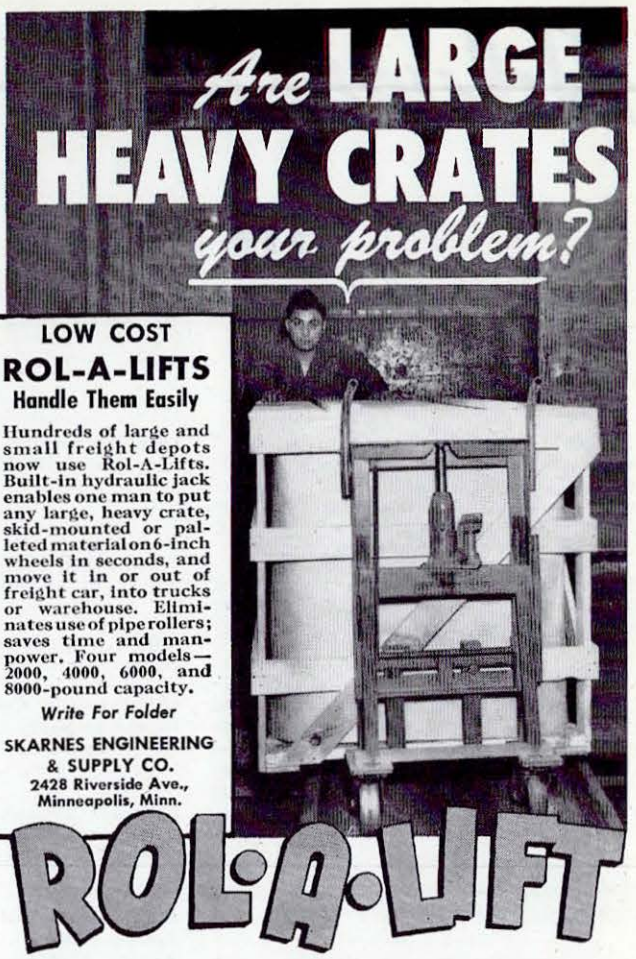
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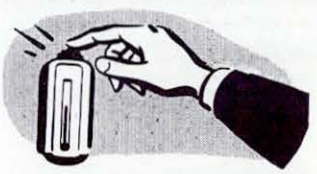

Every room has adjustable air conditioning. Just turn controls in your room to the temperature *you* want.

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8th and St. Charles
ROOMS FROM $3.50

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Have you ever stopped to think how closely adequate advertising is linked to adequate inventory control? It's a vital subject on all Class I railroads.

The Chief Engineer of a major road recently declared that it's a great mistake for a manufacturer to postpone his promotion campaign until others have developed the railway market.

The Chief then went on to explain the importance, to his department and the purchases and stores department, of limiting the number of varied makes of equipment for which replacement parts must be stocked, in order to keep down inventories.

"Therefore," he continued, "if the manufacturer gets his machines in service on a railroad early in the game, he has a tremendous advantage, and, as long as his product remains good and modern, there is every reason for a railroad to continue buying from him so as to simplify its parts problem."

It is in establishing this product acceptance—and in maintaining it—that advertising plays such an important role.

Today's leading manufacturers are generally those who get their product story across to the field "early in the game" and keep it there, month after month, year after year, through regular *business paper advertising.*

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• Ryerson has the steel you need ready for immediate shipment. Twelve convenient Ryerson plants stock more than ten thousand kinds, shapes and sizes of steel and allied products. Joseph T. Ryerson & Son, Inc. Plants at: Chicago, Milwaukee, St. Louis, Cincinnati, Detroit, Cleveland, Buffalo, Boston, Philadelphia, Jersey City, Pittsburgh, Los Angeles.

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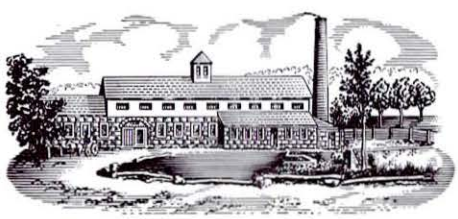
Time is the measure of all things. Few of man's inventions can stand its merciless judgment. Yet Kerite for over 90 years has thrived and spread and gained renown. Time, indeed, gives Kerite its unqualified recommendation.



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Kerite Insulation—Your Cable's Best Life Insurance

World's Most Powerful Electric Locomotives

Built by the General Electric Company for the Great Northern and Virginian Railroads respectively, these locomotives represent the highest development of this class of motive power.

The Great Northern are single unit locomotives, while those of the Virginian Railroad are two unit machines. The Great Northern locomotives are rated at 5,000 H.P. and the Virginian locomotives at 6,800 H.P. The former weigh 360 tons each and the latter 500 tons. All are equipped with Timken roller bearings on all axles.

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